



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C07H 21/04, C12Q 1/68, C12N 15/63, 15/85, C12P 21/02	A1	(11) International Publication Number: WO 98/14466 (43) International Publication Date: 9 April 1998 (09.04.98)
(21) International Application Number: PCT/US97/17658 (22) International Filing Date: 30 September 1997 (30.09.97) (30) Priority Data: 08/724,394 1 October 1996 (01.10.96) US 08/852,495 7 May 1997 (07.05.97) US (71) Applicant: PROGENTIOR, INC. [US/US]; 4040 Campbell Avenue, Menlo Park, CA 94025 (US). (72) Inventors: FEDER, John, N.; 1450 Chestnut Street, San Carlos, CA 94070 (US). KRONMAL, Gregory, S.; 277 Gateway Drive #131, Pacifica, CA 94044 (US). LAUER, Peter, M.; 128 Randall Street, San Francisco, CA 94131 (US). RUDDY, David, A.; 885 Greenwich Street, San Francisco, CA 94133 (US). THOMAS, Winston, J.; 40 White Plains Court, San Mateo, CA 94402 (US). TSUCHIHASHI, Zenta; 9 Light Way, Menlo Park, CA 94025 (US). WOLFF, Roger, K.; 41 Eugene Street, Mill Valley, CA 94941 (US). (74) Agents: FITTS, Renee, A. et al.; Townsend and Townsend and Crew LLP, 8th floor, Two Embarcadero Center, San Francisco, CA 94111-3834 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: POLYMORPHISMS AND NEW GENES IN THE REGION OF THE HUMAN HEMOCHROMATOSIS GENE		
(57) Abstract <p>Polymorphic sites in the region surrounding the HFE gene are provided. These polymorphisms are useful as surrogate markers in diagnostic assays for hemochromatosis. Additionally, a fine structure map of the 1 megabase region surrounding the HFE gene is provided, along with 235 kb of DNA sequence and 8 loci corresponding to candidate genes within the 1 megabase region, and in the purification of related proteins.</p>		

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

Polymorphisms and New Genes in the Region of the Human Hemochromatosis Gene

BACKGROUND OF THE INVENTION

Hereditary hemochromatosis (HH) is an inherited disorder of iron metabolism wherein the body accumulates excess iron. In symptomatic individuals, this excess iron leads to deleterious effects by being deposited in a variety of organs leading to their failure, and resulting in cirrhosis, diabetes, sterility, and other serious illnesses. The gene which is defective in this disease was disclosed in copending U.S.S.N. 08/652,265.

Fine structure mapping of the region to which the gene responsible for HH, HFE (denoted HH or HFE in some publications), was mapped makes possible the identification of candidate sequences comprising the HFE gene, along with structural elements for regulation and expression and neighboring genes.

A variety of techniques is available for fine structure mapping, including direct cDNA selection, exon-trapping, and genomic sample sequencing. The direct selection approach (Lovett *et al.* Proc. Natl. Acad. Sci. U.S.A. 88:9628-9623 (1991)) involves the hybridization of cDNA fragments to genomic DNA. This technique is extremely sensitive and capable of isolating portions of rare transcripts. Exon-trapping (Church *et al.* Nature Genetics 6:98-105 (1994)) recovers spliced introns from *in vivo* expressed genomic DNA clones and produces candidate exons without requiring any prior knowledge of the target's gene expression. High-throughput genomic DNA sequencing with comparison of the sequence data to databases of expressed sequences has also been used, such as in the positional cloning of the Werner syndrome gene (Yu *et al.* Science 277:258-262 (1996)) and in cloning by homology of the second Alzheimer's disease gene on chromosome 1 (Levy-Lahad *et al.* Science 269:973-977 (1995)).

HH is typically inherited as a recessive trait; in the current state of knowledge, homozygotes carrying two defective copies of the gene are most frequently affected by the disease. In addition, heterozygotes for the HFE gene are more susceptible to sporadic porphyria cutanea tarda and potentially other disorders (Roberts *et al.*, Lancet 349:321-323 (1997)). It is estimated that approximately 10-15% of Caucasians carry one copy of the HFE gene mutation and that there are about one million homozygotes in the United States. HH, thus, represents one of the most common genetic disease mutations in Caucasian individuals. Although ultimately HH produces debilitating symptoms, the majority of homozygotes and heterozygotes have not been diagnosed.

The need for such diagnostics is documented, for example, in Barton, J.C. *et al.* Nature Medicine 2:394-395 (1996); Finch, C.A. West J Med 153:323-325 (1990); McCusick, V. Mendelian Inheritance in Man pp. 1882-1887, 11th ed., (Johns Hopkins University Press, Baltimore (1994)); Report of a Joint World Health Organization/Hemochromatosis Foundation/French Hemochromatosis Association Meeting on the Prevention and Control of Hemochromatosis (1993); Edwards, C.Q. *et al.* New Engl J Med 328:1616-1620 (1993); Bacon, B.R. New Engl J Med 326:126-

127 (1992); Balan, V. et al. Gastroenterology 107:453-459 (1994); Phatak, P.D. et al. Arch Int Med 154:769-776 (1994).

A single mutation in the HFE gene, designated 24d1 in copending U.S.S.N. 08/630,912, gave rise to the majority of disease-causing chromosomes present in the population today. This is referred to herein as the "common" or "ancestral" or "common ancestral" mutation. These terms are used interchangeably. It appears that about 80% to 90% of all HH patients carry at least one copy of the common ancestral mutation which is closely linked to specific alleles of certain genetic markers close to this ancestral HFE gene defect. These markers are, as a first approximation, in the allelic form in which they were present at the time the ancestral HFE mutation occurred. See, for example, Simon, M. et al. Am J Hum Genet 41:89-105 (1987); Jazwinska, E.C. et al. Am J Hum Genet 53:242-257 (1993); Jazwinska, E.C. et al. Am J Hum Genet 56:428-433 (1995); Worwood, M. et al. Brit J Hematol 86:863-866 (1994); Summers, K.M. et al. Am J Hum Genet 45:41-48 (1989).

Several polymorphic markers in the HFE region have been described and shown to have alleles that are associated with HH disease. These markers include the published microsatellite markers D6S258, D6S306 (Gyapay, G. et al. Nature Genetics 7:246-339 (1994)), D6S265 (Worwood, M. et al. Brit J Hematol 86:833-846 (1994)), D6S105 (Jazwinska, E.C. et al. Am J Hum Genet 53:242-257 (1993); Jazwinska, E.C. et al. Am J Hum Genet 56:428-433 (1995)), D6S1001 (Stone, C. et al. Hum Molec Genet 3:2043-2046 (1994)), D6S1260 (Raha-Chowdhury et al. Hum Molec Genet 4:1869-1874 (1995)) as well as additional microsatellite and single-nucleotide-polymorphism markers disclosed in co-pending PCT application WO 96/06583, the disclosure of which is hereby incorporated by reference in its entirety. Additionally, copending U.S.S.N. 08/630,912 disclosed additional markers 24d2 and 24d7.

The symptoms of HH are often similar to those of other conditions, and the severe effects of the disease often do not appear immediately. Accordingly, it would be desirable to provide a method to identify persons who may be destined to become symptomatic in order to intervene in time to prevent excessive tissue damage associated with iron overload. One reason for the lack of early diagnosis is the inadequacy of presently available diagnostic methods to ascertain which individuals are at risk, especially while such individuals are presymptomatic.

Although blood iron parameters can be used as a screening tool, a confirmed diagnosis often employs liver biopsy which is undesirably invasive, costly, and carries a risk of mortality. Thus, there is a clear need for the development of an inexpensive and noninvasive diagnostic test for detection of homozygotes and heterozygotes in order to facilitate diagnosis in symptomatic individuals, provide presymptomatic detection to guide intervention in order to prevent organ damage, and for identification of heterozygote carriers.

Furthermore, a need exists for both methods for fine structure mapping and a fine structure map of the region of the chromosome to which the HH locus maps. This and other needs are addressed by the present invention.

SUMMARY OF THE INVENTION

One aspect of the invention is an oligonucleotide comprising at least 8 to about 100 consecutive bases from the sequence of Figure 9, or the complement of the sequence, wherein the at least 8 to about 100 consecutive bases includes at least one polymorphic site of Table 1.

5 Another aspect of the invention is an oligonucleotide pair selected from the sequence of Figure 9 or its complement for amplification of a polymorphic site of Table 1.

Another aspect of the invention is an isolated nucleic acid molecule comprising about 100 consecutive bases to about 235 kb substantially identical to the sequence of Figure 9, wherein the DNA molecule comprises at least one polymorphic site of Table 1.

10 Another aspect of the invention is a method to determine the presence or absence of the common hereditary hemochromatosis (HFE) gene mutation in an individual comprising:

providing DNA or RNA from the individual; and

assessing the DNA or RNA for the presence or absence of a haplotype of Table 1,

15 wherein, as a result, the absence of a haplotype of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the haplotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

Another aspect of the invention is a method to determine the presence or absence of the common hereditary hemochromatosis (HFE) gene mutation in an individual comprising:

20 providing DNA or RNA from the individual; and

assessing the DNA or RNA for the presence or absence of a genotype defined by a polymorphic allele of Table 1,

25 wherein, as a result, the absence of a genotype defined by a polymorphic allele of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the genotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

Another aspect of the invention is a culture of lymphoblastoid cells having the designation ATCC CRL-12371.

30 One aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF1.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF2.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF3.

35 A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF4.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to BTF5.

40 A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to NPT3.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to NPT4.

A further aspect of the invention is an isolated nucleic acid sequence comprising a nucleic acid sequence substantially identical to RoRet.

5 Additional aspects of the invention include nucleic acid sequences that are cDNAs, polypeptides encoded by the nucleic acids of the invention and antibodies specifically immunoreactive thereto, vectors comprising the nucleic acid sequences of the invention, and host cells stably transfected with the nucleic acids of the invention.

10 A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF1.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF2.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF3.

15 A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF4.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of BTF5.

20 A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of NPT3.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of NPT4.

A further aspect of the invention is an isolated nucleic acid sequence comprising at least 18 contiguous nucleotides substantially identical to at least 18 contiguous nucleotides of RoRet.

25 BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 depicts a combination genetic, physical and transcription map of the HFE gene region. The first line shows the relative positions of selected genetic markers that define the HFE region. The heavy bar below represents the YAC clone used in the direct selection experiment. The order and positions of the bacterial clones employed in the exon-trapping and sample sequencing is indicated under the YAC. The thin bar under the bacterial clones represents the approximate locations of a subset of the expressed sequence fragments mapped to the contig. The thicker bars show the location of the cDNAs cloned. Two regions are bracketed; the butyrophilin family of genes (BTF), and the region where complete genomic sequencing was carried out.

35 Figure 2 is a schematic of the 250 kb of genomic sequence including the HFE gene. Both the structure of the overall cDNA (top) and that corresponding to the coding regions (bottom), as well as the direction of transcription are shown. The positions of the histone genes, the zinc α -2 glycoprotein pseudogene, and the ESTs are also shown.

40 Figure 3 depicts an alignment of the predicted amino acid sequence of the BTF proteins. Sequences were aligned in a pair-wise fashion using CLUSTAL W (Thompson *et al.* Nucl. Acids Res. 22:4673-4680) to deduce the most parsimonious arrangement. The asterisks under the

alignment represent amino acids conserved in all 6 proteins; the "dots" represent conserved amino acids substitutions. Boxed are the regions within the proteins which correspond to three conserved motifs: 1) the B-G domain, 2) the transmembrane domain (TM), and 3) the B30-2 exon domain.

Figure 4, panel (A) depicts a Northern blot analysis of representative members of the two groups of BTF proteins, BTF1 and BTF5. BTF1 hybridized to all tissues on the blot as a major transcript at 2.9 kb and a minor one at 5.0 kb. BTF5 hybridized to several transcripts ranging between 4.0 and 3.1 kb and as a similar expression profile to BTF1. Autoradiography was for 24 hours. The β -actin hybridization demonstrated the variation in poly (A)+ RNA between the lanes. Autoradiography was for 1 hour. In panel (B), RT-PCR analysis demonstrated that the expression of both genes was widespread. Included in the (+) lane are cDNA 21 and 44 as positive controls; the (-) lane represents the no-DNA control. Amplification using primers for the RFP gene (Isomura *et al.* Nucleic Acid Res. 20:5305-5310 (1992)) controlled for the integrity of the cDNA. All first strand cDNAs were checked for contaminating genomic DNA amplification by carrying out an identical experiment excluding the reverse transcriptase. In all cases, no amplification was obtained (data not shown).

Figure 5(A) depicts an alignment of the predicted amino acid sequence of the RoRet gene to the 52 kD Ro/SSA auto-antigen protein. The asterisks under the alignment represent conserved amino acids; the "dots" represent conserved amino acids substitutions. The putative DNA binding cysteine-rich domain and the B30-2 exon domain are boxed. Figure 5(B) depicts an alignment of the predicted amino acid sequence of the two novel putative sodium phosphate transport proteins to that of the NPT1.

Figure 6, panel (A) depicts a Northern blot analysis of the RoRet gene. The RoRet cDNA hybridized to 4 different transcripts, ranging from 7.1 kb to 2.2 kb. Autoradiography was performed for 4 days. The re-hybridization of the blot with a β -actin probe showed the variation in poly (A)+ RNA between the lanes. Autoradiography was for 1 hour. Panel (B) depicts RT-PCR analysis of the RoRet gene. Included in the (+) lane was a cDNA 27 positive control. Weak amplification of the correct size was observed in the small intestine, kidney and liver. The other tissues were negative as was the no DNA control lane (-). The RFP primers demonstrated the integrity of the cDNA. Panel (C) depicts Northern blot analysis of NPT3 and NPT4. NPT3 was expressed at high abundance in the heart and muscle as a single 7.2 kb transcript. Lesser amounts were found in the other tissues. The expression pattern of NPT4 was more restricted, being found only in the liver and kidney as a smear of transcripts ranging from 2.6 to 1.7 kb. Panel (D) depicts RT-PCR analysis of the NPT3 and NPT4 genes. Included in the (+) lane were the respective cDNA22E and 22B positive controls. The NPT3 gene was expressed as the proper size PCR fragment in kidney, liver, spleen and testis. A smaller fragment was detected in all tissues with the exception of the liver. The no DNA control lane (-) was negative. NPT4 was expressed as the proper size fragment in the small intestine, kidney, liver and testis. Larger and smaller size fragments were found in all other tissues with the exception of the brain. For both genes these different size fragments may indicate alternative splice events. The no DNA control lane (-) was negative. The RFP primers demonstrated the integrity of the cDNA.

Figure 7 depicts the sequences of cDNA 21 (BTF1), cDNA 29 (BTF3), cDNA 23 (BTF4), cDNA 44 (BTF5), cDNA 32 (BTF2), cDNA 27 (RoRet), cDNA 22B (NPT3), cDNA22E (NPT4).

Figure 8 depicts the nucleotide sequence of approximately 235 kb in the HFE subregion from an unaffected individual.

Figure 9 depicts the nucleotide sequence of approximately 235 kb in the HFE subregion from an HH affected individual. Polymorphic sites in the HH affected individual determined by comparing a sequence of the corresponding region from an HH unaffected individual are listed and described in Table I.

DETAILED DESCRIPTION

A. Definitions

Abbreviations for the twenty naturally occurring amino acids follow conventional usage. In the polypeptide notation used herein, the left-hand direction is the amino terminal direction and the right-hand direction is the carboxyl-terminal direction, in accordance with standard usage and convention. Similarly, unless specified otherwise, the left hand end of single-stranded polynucleotide sequences is the 5' end; the left hand direction of double-stranded polynucleotide sequences is referred to as the 5' direction. The direction of 5' to 3' addition of nascent RNA transcripts is referred to as the transcription direction; sequence regions on the DNA strand having the same sequence as the RNA and which are 5' to the 5' end of the RNA transcript are referred to as "upstream sequences"; sequence regions on the DNA strand having the same sequence as the RNA and which are 3' to the 3' end of the RNA transcript are referred to as "downstream sequences".

The term "nucleic acids", as used herein, refers to either DNA or RNA. "Nucleic acid sequence" or "polynucleotide sequence" refers to a single- or double-stranded polymer of deoxyribonucleotide or ribonucleotide bases read from the 5' to the 3' end. It includes both self-replicating plasmids, infectious polymers of DNA or RNA and nonfunctional DNA or RNA. The complement of any nucleic acid sequence of the invention is understood to be included in the definition of that sequence.

"Nucleic acid probes" may be DNA or RNA fragments. DNA fragments can be prepared, for example, by digesting plasmid DNA, or by use of PCR, or synthesized by either the phosphoramidite method described by Beaucage and Carruthers, Tetrahedron Lett. 22:1859-1862 (1981), or by the triester method according to Matteucci, *et al.*, J. Am. Chem. Soc. 103:3185 (1981), both incorporated herein by reference. A double stranded fragment may then be obtained, if desired, by annealing the chemically synthesized single strands together under appropriate conditions or by synthesizing the complementary strand using DNA polymerase with an appropriate primer sequence. Where a specific sequence for a nucleic acid probe is given, it is understood that the complementary strand is also identified and included. The complementary strand will work equally well in situations where the target is a double-stranded nucleic acid.

The phrase "selectively hybridizing to" refers to a nucleic acid probe that hybridizes, duplexes or binds only to a particular target DNA or RNA sequence when the target sequences are present in a preparation of total cellular DNA or RNA. "Complementary" or "target" nucleic acid sequences refer to those nucleic acid sequences which selectively hybridize to a nucleic acid probe. Proper annealing conditions depend, for example, upon a probe's length, base composition, and the number of mismatches and their position on the probe, and must often be determined empirically. For

discussions of nucleic acid probe design and annealing conditions, see, for example, Sambrook *et al.*, Molecular Cloning: a Laboratory Manual (2nd ed.), Vols. 1-3, Cold Spring Harbor Laboratory, (1989) or Current Protocols in Molecular Biology, F. Ausubel *et al.*, ed. Greene Publishing and Wiley-Interscience, New York (1987).

5 The phrase "nucleic acid sequence encoding" refers to a nucleic acid which directs the expression of a specific protein or peptide. The nucleic acid sequences include both the DNA strand sequence that is transcribed into RNA and the RNA sequence that is translated into protein. The nucleic acid sequences include both the full length nucleic acid sequences as well as non-full length sequences derived from the full length protein. It being further understood that the sequence
10 includes the degenerate codons of the native sequence or sequences which may be introduced to provide codon preference in a specific host cell.

 The phrase "isolated" or "substantially pure" refers to nucleic acid preparations that lack at least one protein or nucleic acid normally associated with the nucleic acid in a host cell.

 The phrase "expression cassette", refers to nucleotide sequences which are capable
15 of affecting expression of a structural gene in hosts compatible with such sequences. Such cassettes include at least promoters and optionally, transcription termination signals. Additional factors necessary or helpful in effecting expression may also be used as described herein.

 The term "operably linked" as used herein refers to linkage of a promoter upstream from a DNA sequence such that the promoter mediates transcription of the DNA sequence.

20 The term "vector", refers to viral expression systems, autonomous self-replicating circular DNA (plasmids), and includes both expression and nonexpression plasmids. Where a recombinant microorganism or cell culture is described as hosting an "expression vector," this includes both extrachromosomal circular DNA and DNA that has been incorporated into the host chromosome(s). Where a vector is being maintained by a host cell, the vector may either be stably
25 replicated by the cells during mitosis as an autonomous structure, or is incorporated within the host's genome.

 The term "gene" as used herein is intended to refer to a nucleic acid sequence which encodes a polypeptide. This definition includes various sequence polymorphisms, mutations, and/or sequence variants wherein such alterations do not affect the function of the gene product. The term
30 "gene" is intended to include not only coding sequences but also regulatory regions such as promoters, enhancers, and termination regions. The term further includes all introns and other DNA sequences spliced from the mRNA transcript, along with variants resulting from alternative splice sites.

 The term "plasmid" refers to an autonomous circular DNA molecule capable of replication in a cell, and includes both the expression and nonexpression types. Where a recombinant
35 microorganism or cell culture is described as hosting an "expression plasmid", this includes both extrachromosomal circular DNA molecules and DNA that has been incorporated into the host chromosome(s). Where a plasmid is being maintained by a host cell, the plasmid is either being stably replicated by the cells during mitosis as an autonomous structure or is incorporated within the host's genome.

The phrase "recombinant protein" or "recombinantly produced protein" refers to a peptide or protein produced using non-native cells that do not have an endogenous copy of DNA able to express the protein. The cells produce the protein because they have been genetically altered by the introduction of the appropriate nucleic acid sequence. The recombinant protein will not be found in association with proteins and other subcellular components normally associated with the cells producing the protein. The terms "protein" and "polypeptide" are used interchangeably herein.

The following terms are used to describe the sequence relationships between two or more nucleic acids or polynucleotides: "reference sequence", "comparison window", "sequence identity", "percentage of sequence identity", and "substantial identity". A "reference sequence" is a defined sequence used as a basis for a sequence comparison; a reference sequence may be a subset of a larger sequence, for example, as a segment of a full-length cDNA or gene sequence given in a sequence listing, or may comprise a complete cDNA or gene sequence.

Optimal alignment of sequences for aligning a comparison window may, for example, be conducted by the local homology algorithm of Smith and Waterman Adv. Appl. Math. 2:482 (1981), by the homology alignment algorithm of Needleman and Wunsch J. Mol. Biol. 48:443 (1970), by the search for similarity method of Pearson and Lipman Proc. Natl. Acad. Sci. U.S.A. 85:2444 (1988), or by computerized implementations of these algorithms (for example, GAP, BESTFIT, FASTA, and TFASTA in the Wisconsin Genetics Software Package Release 7.0, Genetics Computer Group, 575 Science Dr., Madison, WI).

The terms "substantial identity" or "substantial sequence identity" as applied to nucleic acid sequences and as used herein and denote a characteristic of a polynucleotide sequence, wherein the polynucleotide comprises a sequence that has at least 85 percent sequence identity, preferably at least 90 to 95 percent sequence identity, and more preferably at least 99 percent sequence identity as compared to a reference sequence over a comparison window of at least 20 nucleotide positions, frequently over a window of at least 25-50 nucleotides, wherein the percentage of sequence identity is calculated by comparing the reference sequence to the polynucleotide sequence which may include deletions or additions which total 20 percent or less of the reference sequence over the window of comparison. The reference sequence may be a subset of a larger sequence.

As applied to polypeptides, the terms "substantial identity" or "substantial sequence identity" mean that two peptide sequences, when optimally aligned, such as by the programs GAP or BESTFIT using default gap weights, share at least 80 percent sequence identity, preferably at least 90 percent sequence identity, more preferably at least 95 percent sequence identity or more.

"Percentage amino acid identity" or "percentage amino acid sequence identity" refers to a comparison of the amino acids of two polypeptides which, when optimally aligned, have approximately the designated percentage of the same amino acids. For example, "95% amino acid identity" refers to a comparison of the amino acids of two polypeptides which when optimally aligned have 95% amino acid identity. Preferably, residue positions which are not identical differ by conservative amino acid substitutions. For example, the substitution of amino acids having similar chemical properties such as charge or polarity are not likely to effect the properties of a protein. Examples include glutamine for asparagine or glutamic acid for aspartic acid.

The phrase "substantially purified" or "isolated" when referring to a peptide or protein, means a chemical composition which is essentially free of other cellular components. It is preferably in a homogeneous state although it can be in either a dry or aqueous solution. Purity and homogeneity are typically determined using analytical chemistry techniques such as polyacrylamide gel electrophoresis or high performance liquid chromatography. A protein which is the predominant species present in a preparation is substantially purified. Generally, a substantially purified or isolated protein will comprise more than 80% of all macromolecular species present in the preparation. Preferably, the protein is purified to represent greater than 90% of all macromolecular species present. More preferably the protein is purified to greater than 95%, and most preferably the protein is purified to essential homogeneity, wherein other macromolecular species are not detected by conventional techniques.

The phrase "specifically binds to an antibody" or "specifically immunoreactive with", when referring to a protein or peptide, refers to a binding reaction which is determinative of the presence of the protein in the presence of a heterogeneous population of proteins and other biologies. Thus, under designated immunoassay conditions, the specified antibodies bind to a particular protein and do not bind in a significant amount to other proteins present in the sample. Specific binding to an antibody under such conditions may require an antibody that is selected for its specificity for a particular protein. A variety of immunoassay formats may be used to select antibodies specifically immunoreactive with a particular protein. For example, solid-phase ELISA immunoassays are routinely used to select monoclonal antibodies specifically immunoreactive with a protein. See Harlow and Lane (1988) Antibodies, a Laboratory Manual, Cold Spring Harbor Publications, New York, for a description of immunoassay formats and conditions that can be used to determine specific immunoreactivity.

As used herein, "EST" or "Expressed Sequence Tag" refers to a partial DNA or cDNA sequence of about 150 to 500, more preferably about 300, sequential nucleotides of a longer sequence obtained from a genomic or cDNA library prepared from a selected cell, cell type, tissue or tissue type, or organisms which longer sequence corresponds to an mRNA or a gene found in that library. An EST is generally DNA. One or more libraries made from a single tissue type typically provide at least 3000 different (i.e. unique) EST's and potentially the full complement of all possible EST's representing all possible cDNAs, e.g., 50,000 - 100,000 in an animal such as a human. (See, for example, Adams *et al.* Science 252:1651-1656 (1991)).

"Stringent" as used herein refers to hybridization and wash conditions of 50% formamide at 42°C. Other stringent hybridization conditions may also be selected. Generally, stringent conditions are selected to be about 5° C lower than the thermal melting point (T_m) for the specific sequence at a defined ionic strength and pH. The T_m is the temperature (under defined ionic strength and pH) at which 50% of the target sequence hybridizes to a perfectly matched probe. Typically, stringent conditions will be those in which the salt concentration is at least about 0.02 molar at pH 7 and the temperature is at least about 60°C. As other factors may significantly affect the stringency of hybridization, including, among others, base composition and size of the complementary strands, the presence of organic solvents and the extent of base mismatching, the combination of parameters is more important than the absolute measure of any one.

B. Transcript Map and New Genes near HH

The instant invention provides a fine structure map of the 1 megabase region surrounding the HFE gene. As part of that map the instant invention provides approximately 250 kb of DNA sequence of which about 235 kb are provided in Figure 8 and eight loci of particular interest corresponding to candidate genes within the 1 megabase region. These loci are useful as genetic and physical markers for further mapping studies. Additionally, the eight cDNA sequences corresponding to those loci are useful, for example, for the isolation of other genes in putative gene families, the identification of homologs from other species, and as probes for diagnostic assays. In particular, isolated nucleic acid sequences of at least 18 nucleotides substantially identical to contiguous nucleotides of a cDNA of the invention are useful as PCR primers. Typically, the PCR primer will be used as part of a pair of primers in a PCR reaction. Isolated nucleic acid sequences preferably comprising about 18-100 nucleotides, more preferably at least 18 nucleotides, substantially identical to contiguous nucleotides in a cDNA of the invention are useful in the design of PCR primers and probes for hybridization assays. Additionally, the proteins encoded by those cDNAs are useful in the generation of antibodies for analysis of gene expression and in diagnostic assays, and in the purification of related proteins.

Thus, in one embodiment of the invention, a 235 kb sequence is provided for the HFE subregion within the 1 megabase region mapped. This sequence can serve as a reference in genetic or physical analysis of deletions, substitutions, and insertions in that region. Additionally, the sequence information provides a resource for the further identification of new genes in that region. Thus, nucleic acid sequences substantially identical to the 235 kb sequence are also included in the scope of this invention.

In a further embodiment of the invention, a family of five genes, BTF1-5, is provided which are related by sequence homology to the milk protein butyrophilin (BT) (Figures 1, 3, and 7). The predicted amino acid sequences of the proteins encoded by these genes are provided in Figure 3. These cDNAs are useful for the identification of further members of the BT family and to study regulation of expression of this family of genes. The proteins encoded by these cDNAs can be useful in the identification and isolation of ligands for the BT protein, and in the generation of agonists or antagonists of BT function. Nucleic acid sequences substantially identical to BTF1-5 and the proteins encoded by them are also included in the scope of this invention, including allelic forms.

In a further embodiment of the invention, a novel gene RoRet is provided, which is related by sequence homology to the 52 kD Ro/SSA Lupus and Sjogren's syndrome autoantigen. This sequence is especially useful in the identification of other genes that may be involved in Lupus or Sjogren's syndrome. The protein encoded by this cDNA can be useful in the identification and isolation of ligands for the autoantigen, and in the generation of agonists or antagonists of the antigen. Nucleic acid sequences substantially identical to RoRet and the proteins encoded by them are also included in the scope of this invention.

In a further embodiment of the invention, two genes, NPT3 and NPT4, with structural homology to a type 1 sodium transport gene are provided. These cDNAs and the proteins expressed by them are useful in determining the etiology of hypophosphatemia, along with being useful as probes

in the identification and isolation of further members of the gene family. Nucleic acid sequences substantially identically to the NPT1-like sequences and the proteins encoded by them are also included in the scope of this invention.

C. Polymorphic Markers

The invention provides 397 new polymorphic sites in the region of the HFE gene. These polymorphisms are listed in Table 1. As described below, these polymorphisms were identified by comparison of the DNA sequence of an affected individual homozygous for the common ancestral HH mutation with that of an unaffected individual disclosed in copending U.S. 08/724,394.

Table 1. Polymorphic Sites in the HH Region

Base Location	Difference	Base Location	Difference
35-36	AC DEL	19755	G-A
841	T-C	19949	C-T
2662-2663	TT DEL	20085	C-T
3767	T-C	20366-20367	A INS
3829	C-G	20463	C-A
4925-4928	TAAA DEL	20841	A-T
5691	C-T	21059	A-T
5839	T-C	21117	A-G
6011	G-A	21837	A-C
6047	C-G	22293	A-C
6231	G-A	22786	C-A
6643	A DEL	23009	G-A
6698	T-C	24143	T-A
7186	T-C	26175	G-C
7273	G-A	26667	C-A
7545-7558	TCACACACCGATTGG DEL	26994	T-C
7672	G DEL	27838	G-T
7933	T-C	27861	T DEL
8746	T-G	28132	G-A
9115	G-A	29100	G-A
9823	G-A	29454-29457	TTTT DEL
10027	G-A	29787	T-G
10214	C-T	29825	A-C
10828	A-G	30009	T-C
10918	C-G	30177	A-G
10955	A-G	30400	A-G
11524	C-A	31059	T-A
11674	A-G	31280	C-T
11955	T-C	31749	C-T
12173-12175	TTT DEL	32040	C-G
13304	G-A	32556-32559	TGTG DEL
13455	G-A	33017	T-G
14416-14417	A INS	33026	T DEL
14998	C-T	34434	C-T
15564	T-C	35179	A-C
15887	A-G	35695	G-A
15904-15919	CCAAACTGATCTTTGA DEL	35702	G-A
16019	T DEL	35983	A-G
16211	A-T	37411	A-G
17461	A-G	38526	C-T

5

10

15

20

25

30

35

40

45

50

55

Base Location	Difference	Base Location	Difference
40431	C-A	72688	C-G
42054-42055	TT DEL	75323-75324	T INS
43783-43784	TTTT INS	75887	G-C
45120	C DEL	77519	T-C
45567	A-C	77749	G-A
46601	A-T	77908	T-C
47255	C-G	78385	C-G
47758	C-A	78592-78593	AG INS
47994	G-C	80189	T-G
48440	G-A	80279	T DEL
48650	T-G	80989-80990	A INS
48680	A-G	81193	T-C
50240	C-T	81273	A DEL
50553	G-A	82166	G-A
50586	G-T	83847	T DEL
51322	G-C	84161-84162	CA-GG
51747	A-G	84533	A-G
52474	C-G	84638	T-G
52733	C-A	85526	T-G
52875	G-A	85705	G-T
53631-53637	TTTTTTT DEL	86984	T-C
53707	G-A	87655	T-C
54819	A-G	87713	A-C
55913	T-C	87892	C-T
56225	A-C	88192	T DEL
56510	T-C	88528	A-G
56566	G-A	89645	A-T
56618	A-T	89728	A-G
57815	A-G	90088	T-C
58011	T DEL	91193-91194	2209bp INS
58247-58248	T INS	91373	T-C
58926	C-G	91433-91434	A INS
59406	C-G	91747	G-A
59422	G-C	93625	T DEL
60221-60222	A INS	95116-95117	T INS
60656-60657	CA DEL	96315	G-A
61162	G-A	97981	A-G
61465	G-A	98351	T DEL
61607	A DEL	99249	C-T
61653	T-C	100094-100095	T INS
61794-61795	T INS	100647-100648	TTC INS
62061	G-C	100951	C-T
62362	T-G	101610	C-G
62732	C-G	102589	C-T
63364	G-A	103076-103077	TATATATATATA INS
63430-63431	GT INS	103747	T-C
63754	C-T	105638	A-C
63785	A-C	107024	C-T
63870-63871	A INS	107322	C-T
64788	A-G	107858	C-G
64962	G-A	109019	A DEL
65891	C-T	109579	T DEL
66675	G-C	110021	C-A
67186-67187	ATT INS	111251	C-A
67746-67747	TT INS	111425	G-A
68259	T-C	112644	T-A
68836	T-C	113001	G-C
68976	C-G	113130	C-T
72508	T-G	114026	G-A

	Base Location	Difference	Base Location	Difference
	114250	A DEL	176222	T-C
	115217	C-G	176524	A-T
	117995	G-A	176684	G-A
	118874	A-G	176815	T-C
5	119470	T-C	177049	T-C
	119646	G-T	177065	G-T
	120853	C-T	178285	T-C
	121582	G-A	178551-178552	CTTTTTTTTTTTTT INS
10	123576	A-C	179114-179115	A INS
	125581	C-T	179260	C-G
	125970	G-T	179281	C-G
	126197	A-G	180023	G-C
	126672	A DEL	180430	T-C
	126672	G-C	180773	T-C
15	128220-128221	A INS	180824	T-C
	132569	C-T	181097	C-T
	133572	A-C	181183	A-T
	134064	T-G	182351	C-T
20	136999	G-A	183197	G-A
	137784	C-T	183623	A-T
	138903	G-A	183653	G-T
	139159-139160	A INS	183657	T-G
	140359	G-A	183795-183796	A INS
25	140898	C-T	184060	G-A
	141313	C DEL	184993	G-A
	141343	T-C	185918	A-G
	142148	T-C	186036	T-C
	142178	C-A	186506-186507	TAAC INS
30	142433-142434	ATAGA INS	186561-186568	TATTTATT DEL
	143783	C-T	186690	G DEL
	144090	C-T	186751	T-A
	144220-144221	A INS	187221	A-G
	144725	A-C	187260	A-G
35	145732-145733	AAAAAAAAAAAAA INS	187444-187447	CTCT DEL
	147016-147017	CG DEL	187831-187832	C INS
	147021	G-T	188638	G-A
	147536	T-G	188642	C-T
	148936	T-A	189246	T-C
40	149061	T-C	190340	A-C
	154341	A-T	190354	A-G
	154588	G-A	190762	A-G
	155464	G-A	191260	G-T
	158574	C-G	193018-193019	AGAT INS
45	160007	C-T	193147	T-G
	164348	A-T	193196-193197	C INS
	164499	C-G	193499	C-T
	166677-166678	AAAG INS	193738	C-G
	167389	G-A	193984-193985	ACACACAC INS
50	168506-168507	AGGATGGTCT INS	194064	C-G
	168515	T-C	194504	A DEL
	169413-169414	AA INS	194734	G-A
	170300-170301	TTGTTGTTGTTG INS	194890	A-C
	170491	G-A	195404	G-A
55	173428	T-C	195693	A-T
	173642	G-A	196205	G-A
	173948	T-G	197424	C-T
	175330	T-C	197513	C-T
	175836	T-C	197670	G-A
	176200	G-C	198055	C-A

	Base Location	Difference	Base Locati n	Difference
	198401	C-T	215947	C-A
	198692	A-G	216232	A-G
	198780	T DEL	217478	G-A
5	199030	T-G	219052	T-C
	199933	C-T	219082-219083	ATATATATATATATATAT INS
	200027	G-A	219314	C-A
	200439	T-A	219327	G-A
	200452	A-G	219560	C-T
10	200472-200483	AATAATAATAAT DEL	219660	C-T
	200559	A-T	219889	G-A
	200745	A-G	220198	G-T
	200919	T-A	220384	G-A
	201816	C-T	220451-220452	CAAAAA INS
	201861-201862	42bp INS	221363	G-A
15	202662	T-C	221645	G-A
	202880	T-C	222119	T-C
	204341	C-T	222358	A-G
	204768	A-T	222367	A-C
20	205284	T-G	222686	A-G
	207400	C-A	222959	T-C
	208634	T-C	223270-223271	TT DEL
	208718	T DEL	223283	T-C
	208862	A-C	224964	T-C
25	209419-209420	TT DEL	225232	A-C
	209802	G-A	225366-225367	TTTT INS
	209944	C-G	225416	G-C
	210299	A-G	225486	T-C
	211142	G-A	226088	A-G
	212072	G-A	228421	A-G
30	212146	T-C	230047	G-A
	212379	G-A	230109	G-C
	212637-212639	TCT DEL	230376	C-G
	212696	T-C	230394	A-G
	213042	T-A	231226	A-G
35	214192	A-G	231447	G-A
	214529-214530	TTTTTTTTTTT INS	231835	A-G
	214549	T-C	232400-232402	AAA DEL
	214795	C-T	232402-232403	G INS
40	214908	T-G	232515	T-C
	214977	A-G	232703	G-T
	215769	C-T	232750	A-G

* D6S2238 occurs at base 1. 24d1 occurs at base 41316. D6S2239 occurs at base 84841. D6S2241 occurs at base 235032

45 Table 2. Polymorphic Allele Frequencies

	Location	Frequency of ancestral variant in random chromosomes	Frequency of unaffected variant in random chromosomes
	232703	53%	47%
	231835	53%	47%
	230394	85%	15%
50	230376	25%	75%
	230109	53%	47%
	225486	45%	55%
	225416	75%	25%
	220198	43%	57%
55	219660	58%	42%

	Locati n	Frequency of ancestral variant in random chromosomes	Frequency f unaffected variant in random chromosomes
	219560	53%	47%
	214977	65%	35%
	214908	50%	50%
	214795	24%	76%
5	214549	53%	47%
	214192	65%	35%
	210299	53%	47%
	208862	80%	20%
	208634	48%	52%
10	207400	25%	75%
	205284	50%	50%
	204341	53%	47%
	202880	58%	42%
	202662	98%	2%
15	200027	25%	75%
	199030	58%	42%
	198692	55%	45%
	198401	55%	45%
	198055	55%	45%
20	195693	60%	40%
	195404	25%	75%
	194890	55%	45%
	175330	53%	47%
	173948	83%	17%
25	173642	55%	45%
	173428	80%	20%
	168515	80%	20%
	160007	18%	82%
	149061	58%	42%
30	148936	82%	18%
	147536	100%	0%
	147021	46%	54%
	141343	55%	45%
	140359	55%	45%
35	138903	55%	45%
	132569	81%	19%
	125581	18%	82%
	121582	80%	20%
	120853	18%	82%
40	118874	85%	15%
	115217	50%	50%
	113130	40%	60%
	113001	48%	52%
	107858	48%	52%
45	103747	50%	50%
	96315	25%	75%
	91194	80%	20%
	90088	75%	25%
	89728	50%	50%
50	89645	50%	50%
	88528	63%	37%
	87892	75%	25%
	87713	60%	40%
	87655	50%	50%
55	86984	79%	21%
	85705	50%	50%
	85526	50%	50%

	Location	Frequency of ancestral variant in random chromosomes	Frequency of unaffected variant in random chromosomes
	84638	50%	50%
	84533	50%	50%
	82166	78%	22%
	81193	58%	42%
5	80189	50%	50%
	78385	80%	20%
	77908	88%	12%
	68976	50%	50%
10	68259	51%	49%
	66675	80%	20%
	62732	50%	50%
	62362	40%	60%
	61653	48%	52%
	61465	5%	95%
15	61162	60%	40%
	53707	100%	0%
	52875	50%	50%
	52733	74%	26%
	52474	47%	53%
20	50586	50%	50%
	50553	50%	50%
	50240	50%	50%
	48680	53%	47%
	48650	63%	37%
25	48440	50%	50%
	47255	50%	50%
	46601	53%	47%
	45567	49%	51%
	41316	5%	95%
30	40431	20%	80%
	38526	23%	77%
	37411	70%	30%
	35983	5%	95%

35 These polymorphisms provide surrogate markers for use in diagnostic assays to detect the likely presence of the mutations 24d1 and/or 24d2, in preferably 24d1, in homozygotes or heterozygotes. Thus, for example, DNA or RNA from an individual is assessed for the presence or absence of a genotype defined by a polymorphic allele of Table 1, wherein, as a result, the absence of a genotype defined by a polymorphic allele of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the genotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

40 These markers may be used singly, in combination with each other, or with other polymorphic markers (such as those disclosed in co-pending PCT application WO 96/06583) in diagnostic assays for the likely presence of the HFE gene mutation in an individual. For example, any of the markers defined by the polymorphic sites of Table 1 can be used in diagnostic assays in combination with 24d1 or 24d2, or at least one of polymorphisms HHP-1, HHP-19, or HHP-29, or microsatellite repeat alleles 19D9:205; 18B4:235; 1A2:239; 1E4:271; 24E2:245; 2B8:206; 3321-1:98; 4073-1:182; 4440-1:180; 4440-2:139; 731-1:177; 5091-1:148; 3216-1:221; 4072-2:170; 950-1:142; 950-2:164; 950-3:165; 950-4:128; 950-6:151; 950-8:137; 63-1:151; 63-2:113; 63-3:169; 65-1:206; 65-

2:159; 68-1:167; 241-5:108; 241-29:113; 373-8:151; and 373-29:113, D6S258:199, D6S265:122, D6S105:124; D6S306:238; D6S464:206; and D6S1001:180.

Table 2 lists the frequency of about 100 of the alleles defined by the polymorphic sites of the invention in the general population. As is evident from the Table, certain of these alleles are present rarely in the general population. These polymorphisms are thus preferred as surrogate markers in diagnostic assays for the presence of a mutant HFE allele ("gene mutation") such as 24d1 or 24d2. Preferably, the frequency of the polymorphic allele used in the diagnostic assay in the general population is less than about 50%, more preferably less than about 25%, and most preferably less than about 5%. Thus, of the genotypes defined by the alleles listed in Table 2, polymorphisms occurring at base 35983 and base 61465 of Figure 1 are preferred.

It will be understood by those of skill in the art that because they were identified in an ancestral HH homozygote, the haplotypes defined by the polymorphic sites of Table 1 are predictive of the likely presence of the HFE gene mutation 24d1. Thus, for example, the likelihood of any affected individual having at least two or more of any of the polymorphic alleles defined by Table 1 is greater than that for any unaffected individual. Similarly, the likelihood of any affected individual having at least three or more of any of the polymorphic alleles defined by Table 1 is greater than that for any unaffected individual.

Thus, for example, in a diagnostic assay for the likely presence of the HFE gene mutation in the genome of the individual, DNA or RNA from the individual is assessed for the presence or absence of a haplotype of Table 1, wherein, as a result, the absence of a haplotype of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the haplotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

The markers defined by the polymorphic sites of Table 1 are additionally useful as markers for genetic analysis of the inheritance of certain HFE alleles and other genes which occur within the chromosomal region corresponding to the sequence of Figure 9 which include, for example, those disclosed in copending U.S.S.N. 08/724,394.

As the entire nucleotide sequence of the region is provided in Figure 9, it will be evident to those of ordinary skill in the art which sequences to use as primers or probes for detecting each polymorphism of interest. Thus, in some embodiments of the invention, the nucleotide sequences of the invention include at least one oligonucleotide pair selected from the sequence of Figure 9 or its complement for amplification of a polymorphic site of Table 1. Furthermore, in some embodiments of the invention a preferred hybridization probe is an oligonucleotide comprising at least 8 to about 100 consecutive bases from the sequence of Figure 9, or the complement of the sequence, wherein the at least 8 to about 100 consecutive bases includes at least one polymorphic site of Table 1. In some embodiments the polymorphic site is at base 35983 or base 61465.

It will also be appreciated that the nucleic acid sequences of the invention include isolated nucleic acid molecules comprising about 100 consecutive bases to about 235 kb substantially identical to the sequence of Figure 9, wherein the DNA molecule comprises at least one polymorphic

site of Table 1. Such isolated DNA sequences are useful as primers, probes, or as the component of a kit in diagnostic assays for detecting the likely presence of the HFE gene mutation in an individual.

D. Nucleic Acid Based Screening

Individuals carrying polymorphic alleles of the invention may be detected at either the DNA, the RNA, or the protein level using a variety of techniques that are well known in the art. The genomic DNA used for the diagnosis may be obtained from body cells, such as those present in peripheral blood, urine, saliva, bucca, surgical specimen, and autopsy specimens. The DNA may be used directly or may be amplified enzymatically *in vitro* through use of PCR (Saiki et al. Science 239:487-491 (1988)) or other *in vitro* amplification methods such as the ligase chain reaction (LCR) (Wu and Wallace Genomics 4:560-569 (1989)), strand displacement amplification (SDA) (Walker et al. Proc. Natl. Acad. Sci. U.S.A. 89:392-396 (1992)), self-sustained sequence replication (3SR) (Fahy et al. PCR Methods Appl. 1:25-33 (1992)), prior to mutation analysis. The methodology for preparing nucleic acids in a form that is suitable for mutation detection is well known in the art.

The detection of polymorphisms in specific DNA sequences, such as in the region of the HFE gene, can be accomplished by a variety of methods including, but not limited to, restriction-fragment-length-polymorphism detection based on allele-specific restriction-endonuclease cleavage (Kan and Dozy Lancet ii:910-912 (1978)), hybridization with allele-specific oligonucleotide probes (Wallace et al. Nucl Acids Res 6:3543-3557 (1978)), including immobilized oligonucleotides (Saiki et al. Proc. Natl. Acad. Sci. U.S.A. 86:6230-6234 (1989)) or oligonucleotide arrays (Maskos and Southern Nucl Acids Res 21:2269-2270 (1993)), allele-specific PCR (Newton et al. Nucl Acids Res 17:2503-2516 (1989)), mismatch-repair detection (MRD) (Faham and Cox Genome Res 5:474-482 (1995)), binding of MutS protein (Wagner et al. Nucl Acids Res 23:3944-3948 (1995)), denaturing-gradient gel electrophoresis (DGGE) (Fisher and Lerman et al. Proc. Natl. Acad. Sci. U.S.A. 80:1579-1583 (1983)), single-strand-conformation-polymorphism detection (Orita et al. Genomics 5:874-879 (1983)), RNAase cleavage at mismatched base-pairs (Myers et al. Science 230:1242 (1985)), chemical (Cotton et al. Proc. Natl. Acad. Sci. U.S.A. 85:4397-4401 (1988)) or enzymatic (Youil et al. Proc. Natl. Acad. Sci. U.S.A. 92:87-91 (1995)) cleavage of heteroduplex DNA, methods based on allele specific primer extension (Syvänen et al. Genomics 8:684-692 (1990)), genetic bit analysis (GBA) (Nikiforov et al. Nucl Acids Res 22:4167-4175 (1994)), the oligonucleotide-ligation assay (OLA) (Landegren et al. Science 241:1077 (1988)), the allele-specific ligation chain reaction (LCR) (Barrany Proc. Natl. Acad. Sci. U.S.A. 88:189-193 (1991)), gap-LCR (Abravaya et al. Nucl Acids Res 23:675-682 (1995)), radioactive and/or fluorescent DNA sequencing using standard procedures well known in the art, and peptide nucleic acid (PNA) assays (Orum et al., Nucl. Acids Res. 21:5332-5356 (1993); Thiede et al., Nucl. Acids Res. 24:983-984 (1996)).

In addition to the genotypes defined by the polymorphisms of the invention, as described in co-pending PCT application WO 96/35802 published November 14, 1996, genotypes characterized by the presence of the alleles 19D9:205; 18B4:235; 1A2:239; 1E4:271; 24E2:245; 2B8:206; 3321-1:98 (denoted 3321-1:197 therein); 4073-1:182; 4440-1:180; 4440-2:139; 731-1:177; 5091-1:148; 3216-1:221; 4072-2:170 (denoted 4072-2:148 therein); 950-1:142; 950-2:164; 950-3:165; 950-4:128; 950-6:151; 950-8:137; 63-1:151; 63-2:113; 63-3:169; 65-1:206; 65-2:159; 68-1:167; 241-

5:108; 241-29:113; 373-8:151; and 373-29:113, alleles D6S258:199, D6S265:122, D6S105:124, D6S306:238, D6S464:206; and D6S1001:180, and/or alleles associates with the HHP-1, the HHP-19 or HHP-29 single base-pair polymorphisms can also be used to assist in the identification of an individual whose genome contains 24d1 and/or 24d2. For example, the assessing step can be performed by a process which comprises subjecting the DNA or RNA to amplification using oligonucleotide primers flanking a polymorphism of Table 1, and oligonucleotides flanking 24d1 and/or 24d2, oligonucleotide primers flanking at least one of the base-pair polymorphisms HHP-1, HHP-19, and HHP-29, oligonucleotide primers flanking at least one of the microsatellite repeat alleles, or oligonucleotide primers for any combination of polymorphisms or microsatellite repeat alleles thereof.

Oligonucleotides useful in diagnostic assays are typically at least 8 consecutive nucleotides in length, and may range upwards of 18 nucleotides in length to greater than 100 or more consecutive nucleotides. Such oligonucleotides can be derived from either the genomic DNA of Figure 8 or 9, or cDNA sequences derived therefrom, or may be synthesized.

Additionally, the proteins encoded by such cDNAs are useful in the generation of antibodies for analysis of gene expression and in diagnostic assays, and in the purification of related proteins.

E. General Methods

The nucleic acid compositions of this invention, whether RNA, cDNA, genomic DNA, or a hybrid of the various combinations, may be isolated from natural sources, including cloned DNA, or may be synthesized *in vitro*. The nucleic acids claimed may be present in transformed or transfected whole cells, in a transformed or transfected cell lysate, or in a partially purified or substantially pure form.

Techniques for nucleic acid manipulation of the nucleic acid sequences of the invention such as subcloning nucleic acid sequences encoding polypeptides into expression vectors, labeling probes, DNA hybridization, and the like are described generally in Sambrook *et al.*, Molecular Cloning - a Laboratory Manual (2nd Ed.), Vol. 1-3, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, (1989), which is incorporated herein by reference. This manual is hereinafter referred to as "Sambrook *et al.*"

There are various methods of isolating the nucleic acid sequences of the invention. For example, DNA is isolated from a genomic or cDNA library using labeled oligonucleotide probes having sequences complementary to the sequences disclosed herein. Such probes can be used directly in hybridization assays. Alternatively probes can be designed for use in amplification techniques such as PCR.

To prepare a cDNA library, mRNA is isolated from tissue such as heart or pancreas, preferably a tissue wherein expression of the gene or gene family is likely to occur. cDNA is prepared from the mRNA and ligated into a recombinant vector. The vector is transfected into a recombinant host for propagation, screening and cloning. Methods for making and screening cDNA libraries are well known. See Gubler, U. and Hoffman, B.J. Gene 25:263-269 (1983) and Sambrook *et al.*

For a genomic library, for example, the DNA is extracted from tissue and either mechanically sheared or enzymatically digested to yield fragments of about 12-20 kb. The fragments

are then separated by gradient centrifugation from undesired sizes and are constructed in bacteriophage lambda vectors. These vectors and phage are packaged *in vitro*, as described in Sambrook, *et al.* Recombinant phage are analyzed by plaque hybridization as described in Benton and Davis, Science 196:180-182 (1977). Colony hybridization is carried out as generally described in M. Grunstein *et al.* Proc. Natl. Acad. Sci. USA, 72:3961-3965 (1975).

DNA of interest is identified in either cDNA or genomic libraries by its ability to hybridize with nucleic acid probes, for example on Southern blots, and these DNA regions are isolated by standard methods familiar to those of skill in the art. See Sambrook, *et al.*

In PCR techniques, oligonucleotide primers complementary to the two 3' borders of the DNA region to be amplified are synthesized. The polymerase chain reaction is then carried out using the two primers. See PCR Protocols: a Guide to Methods and Applications (Innis, M, Gelfand, D., Sninsky, J. and White, T., eds.), Academic Press, San Diego (1990). Primers can be selected to amplify the entire regions encoding a full-length sequence of interest or to amplify smaller DNA segments as desired.

PCR can be used in a variety of protocols to isolate cDNA's encoding a sequence of interest. In these protocols, appropriate primers and probes for amplifying DNA encoding a sequence of interest are generated from analysis of the DNA sequences listed herein. Once such regions are PCR-amplified, they can be sequenced and oligonucleotide probes can be prepared from sequence obtained.

Oligonucleotides for use as primers or probes are chemically synthesized according to the solid phase phosphoramidite triester method first described by Beaucage, S.L. and Carruthers, M.H., Tetrahedron Lett., 22(20):1859-1862 (1981) using an automated synthesizer, as described in Needham-VanDevanter, D.R., *et al.*, Nucleic Acids Res. 12:6159-6168 (1984). Purification of oligonucleotides is by either native acrylamide gel electrophoresis or by anion-exchange HPLC as described in Pearson, J.D. and Regnier, F.E., J. Chrom., 255:137-149 (1983). The sequence of the synthetic oligonucleotide can be verified using the chemical degradation method of Maxam, A.M. and Gilbert, W., in Grossman, L. and Moldave, D., eds. Academic Press, New York, Methods in Enzymology 65:499-560 (1980).

1. Expression

Once DNA encoding a sequence of interest is isolated and cloned, one can express the encoded proteins in a variety of recombinantly engineered cells. It is expected that those of skill in the art are knowledgeable in the numerous expression systems available for expression of DNA encoding a sequence of interest. No attempt to describe in detail the various methods known for the expression of proteins in prokaryotes or eukaryotes is made here.

In brief summary, the expression of natural or synthetic nucleic acids encoding a sequence of interest will typically be achieved by operably linking the DNA or cDNA to a promoter (which is either constitutive or inducible), followed by incorporation into an expression vector. The vectors can be suitable for replication and integration in either prokaryotes or eukaryotes. Typical expression vectors contain transcription and translation terminators, initiation sequences, and promoters useful for regulation of the expression of polynucleotide sequence of interest. To obtain

high level expression of a cloned gene, it is desirable to construct expression plasmids which contain, at the minimum, a strong promoter to direct transcription, a ribosome binding site for translational initiation, and a transcription/translation terminator. The expression vectors may also comprise generic expression cassettes containing at least one independent terminator sequence, sequences permitting replication of the plasmid in both eukaryotes and prokaryotes, *i.e.*, shuttle vectors, and selection markers for both prokaryotic and eukaryotic systems. See Sambrook *et al.* Examples of expression of ATP-sensitive potassium channel proteins in both prokaryotic and eukaryotic systems are described below.

a. **Expression in Prokaryotes**

A variety of procaryotic expression systems may be used to express the proteins of the invention. Examples include *E. coli*, *Bacillus*, *Streptomyces*, and the like.

It is preferred to construct expression plasmids which contain, at the minimum, a strong promoter to direct transcription, a ribosome binding site for translational initiation, and a transcription/translation terminator. Examples of regulatory regions suitable for this purpose in *E. coli* are the promoter and operator region of the *E. coli* tryptophan biosynthetic pathway as described by Yanofsky, C., J. Bacteriol. 158:1018-1024 (1984) and the leftward promoter of phage lambda (P_{λ}) as described by Herskowitz, I. and Hagen, D., Ann. Rev. Genet. 14:399-445 (1980). The inclusion of selection markers in DNA vectors transformed in *E. coli* is also useful. Examples of such markers include genes specifying resistance to ampicillin, tetracycline, or chloramphenicol. See Sambrook *et al.* for details concerning selection markers for use in *E. coli*.

To enhance proper folding of the expressed recombinant protein, during purification from *E. coli*, the expressed protein may first be denatured and then renatured. This can be accomplished by solubilizing the bacterially produced proteins in a chaotropic agent such as guanidine HCl and reducing all the cysteine residues with a reducing agent such as beta-mercaptoethanol. The protein is then renatured, either by slow dialysis or by gel filtration. See U.S. Patent No. 4,511,503.

Detection of the expressed antigen is achieved by methods known in the art as radioimmunoassay, or Western blotting techniques or immunoprecipitation. Purification from *E. coli* can be achieved following procedures such as those described in U.S. Patent No. 4,511,503.

b. **Expression in Eukaryotes**

A variety of eukaryotic expression systems such as yeast, insect cell lines, bird, fish, and mammalian cells, are known to those of skill in the art. As explained briefly below, a sequence of interest may be expressed in these eukaryotic systems.

Synthesis of heterologous proteins in yeast is well known. Methods in Yeast Genetics, Sherman, F., *et al.*, Cold Spring Harbor Laboratory, (1982) is a well recognized work describing the various methods available to produce the protein in yeast.

Suitable vectors usually have expression control sequences, such as promoters, including 3-phosphoglycerate kinase or other glycolytic enzymes, and an origin of replication, termination sequences and the like as desired. For instance, suitable vectors are described in the literature (Botstein, *et al.*, Gene 8:17-24 (1979); Broach, *et al.*, Gene 8:121-133 (1979)).

Two procedures are used in transforming yeast cells. In one case, yeast cells are first converted into protoplasts using zymolyase, lyticase or glucylase, followed by addition of DNA and polyethylene glycol (PEG). The PEG-treated protoplasts are then regenerated in a 3% agar medium under selective conditions. Details of this procedure are given in the papers by J.D. Beggs, Nature (London) 275:104-109 (1978); and Hinnen, a., *et al.*, Proc. Natl. Acad. Sci. U.S.A. 75:1929-1933 (1978). The second procedure does not involve removal of the cell wall. Instead the cells are treated with lithium chloride or acetate and PEG and put on selective plates (Ito, H., *et al.*, J. Bact. 153:163-168 (1983)).

The proteins of the invention, once expressed, can be isolated from yeast by lysing the cells and applying standard protein isolation techniques to the lysates. The monitoring of the purification process can be accomplished by using Western blot techniques or radioimmunoassay or other standard immunoassay techniques.

The sequences encoding the proteins of the invention can also be ligated to various expression vectors for use in transforming cell cultures of, for instance, mammalian, insect, bird or fish origin. Illustrative of cell cultures useful for the production of the polypeptides are mammalian cells. Mammalian cell systems often will be in the form of monolayers of cells although mammalian cell suspensions may also be used. A number of suitable host cell lines capable of expressing intact proteins have been developed in the art, and include the HEK293, BHK21, and CHO cell lines, and various human cells such as COS cell lines, HeLa cells, myeloma cell lines, Jurkat cells, etc. Expression vectors for these cells can include expression control sequences, such as an origin of replication, a promoter (e.g., the CMV promoter, a HSV *tk* promoter or *pgk* (phosphoglycerate kinase) promoter), an enhancer (Queen *et al.* Immunol. Rev. 89:49 (1986)), and necessary processing information sites, such as ribosome binding sites, RNA splice sites, polyadenylation sites (e.g., an SV40 large T Ag poly A addition site), and transcriptional terminator sequences. Other animal cells useful for production of ATP-sensitive potassium channel proteins are available, for instance, from the American Type Culture Collection Catalogue of Cell Lines and Hybridomas (7th edition, (1992)).

Appropriate vectors for expressing the proteins of the invention in insect cells are usually derived from the SF9 baculovirus. Suitable insect cell lines include mosquito larvae, silkworm, armyworm, moth and *Drosophila* cell lines such as a Schneider cell line (See Schneider J. Embryol. Exp. Morphol. 27:353-365 (1987)).

As indicated above, the vector, e.g., a plasmid, which is used to transform the host cell, preferably contains DNA sequences to initiate transcription and sequences to control the translation of the protein. These sequences are referred to as expression control sequences.

As with yeast, when higher animal host cells are employed, polyadenylation or transcription terminator sequences from known mammalian genes need to be incorporated into the vector. An example of a terminator sequence is the polyadenylation sequence from the bovine growth hormone gene. Sequences for accurate splicing of the transcript may also be included. An example of a splicing sequence is the VP1 intron from SV40 (Sprague, J. *et al.*, J. Virol. 45: 773-781 (1983)).

Additionally, gene sequences to control replication in the host cell may be incorporated into the vector such as those found in bovine papilloma virus type-vectors.

Saveria-Campo, M., 1985, "Bovine Papilloma virus DNA a Eukaryotic Cloning Vector" in DNA Cloning Vol. II a Practical Approach Ed. D.M. Glover, IRL Press, Arlington, Virginia pp. 213-238.

The host cells are competent or rendered competent for transformation by various means. There are several well-known methods of introducing DNA into animal cells. These include: calcium phosphate precipitation, fusion of the recipient cells with bacterial protoplasts containing the DNA, treatment of the recipient cells with liposomes containing the DNA, DEAE dextran, electroporation and micro-injection of the DNA directly into the cells.

The transformed cells are cultured by means well known in the art (Biochemical Methods in Cell Culture and Virology, Kuchler, R.J., Dowden, Hutchinson and Ross, Inc., (1977)). The expressed polypeptides are isolated from cells grown as suspensions or as monolayers. The latter are recovered by well known mechanical, chemical or enzymatic means.

2. Purification

The proteins produced by recombinant DNA technology may be purified by standard techniques well known to those of skill in the art. Recombinantly produced proteins can be directly expressed or expressed as a fusion protein. The protein is then purified by a combination of cell lysis (e.g., sonication) and affinity chromatography. For fusion products, subsequent digestion of the fusion protein with an appropriate proteolytic enzyme releases the desired polypeptide.

The polypeptides of this invention may be purified to substantial purity by standard techniques well known in the art, including selective precipitation with such substances as ammonium sulfate, column chromatography, immunopurification methods, and others. See, for instance, R. Scopes, Protein Purification: Principles and Practice, Springer-Verlag: New York (1982), incorporated herein by reference. For example, in an embodiment, antibodies may be raised to the proteins of the invention as described herein. Cell membranes are isolated from a cell line expressing the recombinant protein, the protein is extracted from the membranes and immunoprecipitated. The proteins may then be further purified by standard protein chemistry techniques as described above.

3. Antibodies

As mentioned above, antibodies can also be used for the screening of polypeptide products encoded by the polymorphic nucleic acids of the invention. In addition, antibodies are useful in a variety of other contexts in accordance with the present invention. Such antibodies can be utilized for the diagnosis of HH and, in certain applications, targeting of affected tissues.

Thus, in accordance with another aspect of the present invention a kit is provided that is suitable for use in screening and assaying for the presence of polypeptide products encoded by the polymorphic nucleic acids of the invention by an immunoassay through use of an antibody which specifically binds to polypeptide products encoded by the polymorphic nucleic acids of the invention in combination with a reagent for detecting the binding of the antibody to the gene product.

Once hybridoma cell lines are prepared, monoclonal antibodies can be made through conventional techniques of priming mice with pristane and interperitoneally injecting such mice with the hybrid cells to enable harvesting of the monoclonal antibodies from ascites fluid.

In connection with synthetic and semi-synthetic antibodies, such terms are intended to cover antibody fragments, isotype switched antibodies, humanized antibodies (mouse-human, human-

mouse, and the like), hybrids, antibodies having plural specificities, fully synthetic antibody-like molecules, and the like.

This invention also embraces diagnostic kits for detecting DNA or RNA comprising a polymorphism of Table 1 in tissue or blood samples which comprise nucleic acid probes as described herein and instructional material. The kit may also contain additional components such as labeled compounds, as described herein, for identification of duplexed nucleic acids.

The following examples are provided to illustrate the invention but not to limit its scope. Other variants of the invention will be readily apparent to one of ordinary skill in the art and are encompassed by the appended claims.

F. EXPERIMENTAL EXAMPLES

1. Megabase transcript map

In these studies direct selection, exon-trapping, and genomic sample sequencing were used to generate a transcript map of a 1 megabase region approximately 8.5 megabases telomeric to HLA-A in the vicinity of HFE. This region 6p21.3 was flanked by the genetic markers D6S2242 and D6S2241. The starting material for these experiments was a 1 megabase YAC labeled y899g1 and a bacterial clone contig of this region (Feder *et al.* Nature Genetics 13:399-408 (1996)). These techniques and other methods used in the study are outlined below.

a. Direct Selection (DS)

Poly A⁺ RNA from human fetal brain, liver and small intestine (Clontech, Palo Alto, CA) were converted into cDNA using random primers and a Superscript cDNA synthesis kit (Life Technologies, Gaithersburg, MD). The cDNA was digested with Mbo I and ligated to cDNA Mbo I linker-adaptors. Unligated linker-adaptor were removed by passage through cDNA spun columns (Pharmacia, Piscataway, NJ). The 5 ng of each of the ligated cDNAs were amplified using the cDNA Mbo I-S primer (5'-CCTGATGCTCGAGTGAATTC-3'). The amplified products were purified on S-400 spin columns (Pharmacia, Piscataway, NJ), ethanol precipitated and resuspended at 1 mg/ml in TE. Gel-purified yac899g1 (Centre d'Etude du Polymorphisme Humain) was processed as described by Morgan *et al.* (Nucl. Acids Res. 20:5173-5179 (1992)). The cDNAs were mixed in equal molar amounts for a total of 3 mg, and blocked with a mixture of 4 mg Cot-1 DNA (Life Technologies, Gaithersburg, MD), and a cocktail of Sau 3A-digested ribosomal and five different histone DNAs. The blocked cDNAs were hybridized to biotinylated yac899g1 DNA and streptavidin capture was carried out as described by Morgan *et al.* (*ibid.*). After the second round of selection, the eluted cDNAs were amplified using the cDNA Mbo I-S primer which included a (CUA)₄ repeat at the 5' end to facilitate cloning into a version of pSP72 (Promega, Madison, WI) constructed for use with uracil-DNA glycosylase cloning (UDG, Life Technologies, Gaithersburg, MD). Recombinants were transformed in DH5 α , 1000 clones picked into a 96 well format, and clones prepped for DNA sequencing using AGTC boiling 96-well mini-prep system (Advance Genetic Technologies, Gaithersburg, MD).

Four hundred and sixty five clones were sequenced and the resulting data searched by BLAST (Altschul *et al.* J. Mol. Biol. 215:403-410 (1990)). Those clones representing repetitive, bacterial, yeast, mitochondrial and histone sequences were eliminated from future considerations. The remaining sequences were then searched for overlaps and assembled into 108 unique DS contigs.

The number of clones per DS contig varied between 1 to 22 with the length of each contig ranging from 250bp to 850 bp. Small sequence-tag-sites PCR assays were developed for each DS contig and two experiments were carried out concomitantly; mapping each DS contig back to the bacterial clone contig of the region and testing for the presence of each DS contig in cDNA libraries. Overall, 86 or 80% of the DS contigs mapped back to the region and were found to be in cDNA libraries. The number of 80% mapping to the region was probably an underestimate of the fidelity of the direct-selection since PCR assays which cross exon-intron boundaries would be expected to fail or give larger size products, thereby being scored negative.

b. Exon-Trapping

CsCl-purified genomic P1 (Genome Systems), BAC (Research Genetics) and PAC (Genome Systems) DNAs were digested with BamHI, Bgl II, Pst I Sac I and Xho I and 125 ng of each digest ligated into 500 ng pSPL3 (Church *et al.* Nature Genetics 6:98-105 (1994)) (Life Technologies, Gaithersburg, MD) digested with the appropriate restriction enzyme and phosphatased with calf intestinal alkaline phosphatase (USB, Cleveland, OH). One tenth of the ligation was used to transform XL1-Blue MRF' cells (Stratagene, La Jolla, CA) by electroporation. Nine tenths of the electroporation was used to inoculate 10 ml of LB + 100µg/ml of carbenicillin and after overnight growth, DNA was prepared using Qiagen Q-20 tips (Qiagen GmbH, Hilden Germany). The remaining one tenth was plated on LB +100 µg/ml carbenicillin plates to evaluate the efficiency on cloning and to test individual clones for the presence of single inserts. COS-7 cells were seeded overnight at a density of 1.4×10^5 /well in 6 well dishes. One µg of DNA was transfected using 6ml of Lipofect-Ace. Cytoplasmic RNA was isolated 48 hr post-transfection. RT-PCR was carried out as described by Church *et al.* (*ibid*) using commercially available reagents Life Technologies, Gaithersburg, MD). The resulting CUA-tailed PCR fragments for each restriction digested bacterial clone were pooled and UDG cloned into pSP72-U (a derivative of pSP72). The DNA was transformed in DH5α and the cells plated onto nylon membranes. After overnight growth, duplicates were made and the DNA hybridized to ³²P end-labeled oligos designed to detect various background products associated with the pSPL3 vector. One set of filters was hybridized with the following gel-purified oligos in 6X SSC aqueous hybridization solution at 42° C:

vector-vector splicing	5'-CGACCCAGCAACCTGGAGAT-3'
cryptic donor-1021	5'-AGCTCGAGCGGCCGCTGCAG-3'
cryptic donor-1134	5'-AGACCCCAACCCACAAGAAG-3'

The filters were washed twice in 6X SSC, 10 mM sodium pyrophosphate (NaPPi) at 60°C, 30 mins.

After overnight autoradiography, non-hybridizing clones were picked and grown in 250 µl of LB + 100µg/ml of carbenicillin in 96 well mini-rack tubes. The samples were analyzed by PCR using the secondary PCR primers supplied in the kit (Life Technologies, Gaithersburg, MD) and those clones with inserts greater than 200 bp were selected for sequencing.

Ninety-six exon traps per bacterial clone were sequenced for a total of 768 reactions and the resulting data analyzed by BLAST. In addition, each potential exon was searched against a database of the 86 DS contigs to eliminate redundant sequences. PCR assays were developed for

each of the potential exons and they were tested for their presence in cDNA libraries. A total of 48 potential exons remained after these screening steps.

c. Sample Sequencing

A minimal set of bacterial clones chosen to cover y899g1 were prepped with the Qiagen Maxi-Prep system and purified on CsCl. Ten micrograms of DNA from each bacterial clone was sonicated in a Heat Systems Sonicator XL and end-repaired with Klenow (USB) and T4 polymerase (USB). The sheared fragments were size selected between three to four kilobases on a 0.7% agarose gel and then ligated to BstXI linkers (Invitrogen). The ligations were gel purified on a 0.7% agarose gel and cloned into a pSP72 derivative plasmid vector. The resulting plasmids were transformed into electrocompetent DH5 α cells and plated on LB-carbenicillin plates. A sufficient number of colonies was picked to achieve 15-fold clone coverage. The appropriate number of colonies was calculated by the following equation to generate a single-fold sequence coverage: Number of colonies = size of bacterial clone (in kb)/average sequence read length (0.4 kb). These colonies were prepped in the 96-well AGCT system and end-sequenced with oligo MAP1 using standard ABI Dye Terminator protocols. MAP1 was CGTTAGAACGCGGCTACAAT. The MAP1 sequences were screened locally with the BLAST algorithm against all available public databases. All sequence identities were catalogued and cross referenced to the DS and exon-trapped databases.

A total of 3794 end sequence reactions were run to achieve the theoretical 1X coverage. Eighty-five percent of these sequences contained non-bacterial non-vector inserts. An additional 1060 end sequence reactions were run from the opposite end of the cloning vector to augment the sequence coverage and to prepare for contigging across selected regions. BLAST searches to all publicly available databases identified 12 histone genes and 74 unique expressed sequence fragments (ESF). The ESF represent a collection of ESTs and other expressed sequence fragments that were selected due to their sequence identity over a significant portion of genomic DNA. The ESF were cross referenced against the DS and exon-trapped databases to eliminate redundancies. 58 unique ESF remained, representing 39 distinct clones. Included in these ESF are 5 sequences homologous to histone genes.

Table 3. EST's found by Sample Sequencing Large Insert Bacterial Clones

Clone name	Bacterial clone	Homology 5' blastx	Homology 3' blastx	Poly A+ signal ¹	Genomic poly (A) ₀₈	cDNA Homology
EST03556	pc157c3	na ²	none ³	+	-	cDNA 28
ym33f11	pc157c3	ZNF	na	na	na	
EST04698	pc157c3	na	NSH ⁴	+	-	
EST04812	pc157c3	na	NSH	-	-	
yb89b08	pc157c3	NSH	na	na	na	
yd88g11	pc157c3	na	nsh	+	-	
yj49b01	pc157c3	NSH	na	na	na	
yv81d05	pc157c3	HG17 Human	NSH	+	-	cDNA 30
yg57h09	p196e20	BUTYBOVIN	NSH	+	-	cDNA 21
yq23d08	p196e20	BUTYBOVIN	NSH	+	-	cDNA 21

30	Clone name	Bacterial clone	Homology 5' blastx	Homology 3' blastx	Poly A + signal ¹	Genomic poly (A) _{on}	cDNA Homology
	yo65f06	p196e20	NSH	na	na	na	cDNA 29
	yv88c09	p196e20	BUTYBOVIN	na	na	na	cDNA 29
	yd17d06	p196e20	NSH	na	na	na	cDNA 23
	ye25g03	p196e20	BUTYBOVIN	NSH	na	na	cDNA 44
5	ys04h08	pc45p21	NSH	NSH	+	-	cDNA 44
	yn01c05	p196e20	BUTYBOVIN	na	na	na	cDNA 32
	YG78F10	PC45P21	NSH	NSH	na	na	
	yh54f11	p196e20	none	NSH	-	-	
	ys05b08	pc157c3	NSH	Alu	-	+	
10	yb12h11	b132a12	NSH	Histone H3.1	-	-	
	HSC2EE082	b132a12	na	NSH	+	-	
	HUM160h11b	b132a12	none	na	na	na	
	yg04f09	b132b12	Line element	Alu	-	+	
	yd37d11	b132a12	NSH	Alu	-	+	
15	ym29g03	b132a12	Histone H2A	NSH	+	-	cDNA 37
	yi77b02	b132a12	NSH	NSH	-	-	cDNA 37
	yh76b05	b132a12	NSH	Alu	-	-	
	yu98e02	b132a12	NSH	Alue	-	+	
	yd72h12	b132a12	Alu	NSH	+	+	
20	yd19d03	pc222k22	Histone H2B.1	NSH	+	-	
	ye98g01	b132a12	NSH	NSH	+	-	cDNA
	yi61f07	b132a12	NSH	NSH	-	+	
	ESTO5340	b3e17	na	Alu	-	+	
	yd35d05	pc222k22	NSH	NSH	-	+	
25	yc52a05	pc75L14	NSH	na	na	na	
	yd84a05	pc75L14	none	none	-	? ⁵	
	yr42a05	pc75L14	NaPi transport	none	+	-	cDNA 22B
	yd83h08	b20h20	NSH	none	+	-	
	ye38c09	b20h20	NSH	Alu	-	+	
30	yp74c05	b20h20	NaPi transport	Alu	? ⁶	na	

Bracketed area is the critical region

1 Signal of ATAAA or ATTAA

2 Not available

35 3 "NONE" reported by blast

4 No Significant Homologies

5 3' splice that is not on contig

6 Poor EST sequence

d. cDNA library screening

Superscript plasmid cDNA libraries, brain, liver and testis, were purchased from Life Technologies, Gaithersburg, MD. Colonies were plated on Hybond N filters (Amersham) using

standard techniques. Insert probes from DS, exons and EST (I.M.A.G.E. clones; Genome Systems) were all isolated by PCR followed by purification in low-melting point agarose gels (Seakem). The DNAs were labeled in gel using the Prime-it II kit (Stratagene, La Jolla, CA). Small exon probes were labeled using their respective STS PCR primers instead of random primers. Up to 5 different probes were pooled in a hybridization. Filters were hybridized in duplicate using standard techniques. Putative positives were screened by PCR using the probe's STSs to identify clones. Inserts from positive clones were subcloned in pSP72 and sequenced.

e. Northern blots and RT-PCR analysis

Multiple tissue northern blots were purchased from Clontech and hybridized according to the manufacturer's instructions. RT-PCR was carried out on random primed first strand cDNA made from poly A+ RNA (Clontech) using AmpliTaq Gold (Perkin-Elmer). Control reactions were performed on RNA samples processed in the absence of reverse transcriptase to control for genomic DNA contamination.

f. Genomic Sequencing

The MAP1 sequences from the bacterial clones b132a2, 222K22, and 75L14 were assembled into contigs with the Staden package (available from Roger Staden, MRC). A minimal set of 3 kb clones was selected for sequencing with oligo labeled MAP2 that sits on the opposite end of the plasmid vector. The sequence of MAP2 was GCCGATTCATTAATGCAGGT. The MAP2 sequences were entered into the Staden database in conjunction with the MAP1 sequences to generate a tiling path of 3 kb clones across the region. These sequences were also screened with the BLAST algorithm and all novel sequence identities were noted. The plasmid 3 kb libraries were concurrently transformed in 96 well format into pox38UR (available from C. Martin, Lawrence Berkeley Laboratories). The transformants were subsequently mated with JGM (Strathman *et al.* P.N.A.S. 88:1247-1250 (1991) in 96 well format. All matings of the 3 kb clones within the tiling path were streaked on LB-carbenicillin-kanamycin plates and a random selection of 12 colonies per 3 kb clone was prepped in the AGCT system. The oligos -21: CTGTAAAACGACGGCCAGTC, and REV: GCAGGAAACAGCTATGACC were used to sequence off both ends of the transposon. Each 3 kb clone was assembled in conjunction with the end sequence information from all bacterial clones to generate complete sequence across the region. The genomic sequence was analyzed with the BLAST nucleotide and protein homology algorithms and the GRAIL 1.2 software to identify novel open reading frames (ORF) for gene finding.

g. Discussion

A compilation of 174 ESF led to the construction of an expressed sequence map of the region that served as the framework for the isolation of full-length cDNAs (Figure 1). (The map shows the subset of ESF that were actually mapped). Probes were developed for 82 best ESFs which appeared to be derived from the coding portions of cDNAs and the appropriate cDNA libraries were screened. This led to the isolation of 19 cDNAs, 17 of which represented novel sequences. 70 of the 174 ESF were included in the cDNAs isolated (40%). 36 probes failed to produce any clones even after repeated screening of several libraries. 51 ESF which were not accounted for in the cDNAs

cloned were not used in any screen. Therefore, it is possible that some additional genes within this 1 megabase region may have escaped detection.

A list of these cDNAs cloned and a comparison of the methods used to find them is presented in Table 4. Direct selection found 14 out of the 18 cDNAs contained within the boundaries of the YAC used in the experiment. Exon trapping found 15 out of the 19 cDNAs contained within the boundaries of the large insert bacterial clone contig. Sample sequencing identified 11 genes that had corresponding ESTs in the public database.

Table 4. Comparison of gene finding methods

	Bacterial Clone	CDNA #	Homology	EST	DS	Exon Trap
	157c	28	zinc finger	EST03556	2	1
	157c3	30	nonhistone	yv81d05 yvh07a10	1	none
	157c3	46	ORF	yd88g11	1	
5	157c3	20	BT	none	none	3
	p18696	21	BTF1	yn01G5 yg23d08 yg57h09 yu15h03	4	5
	45p21	32	BTF2	yg78f10 yn01c05	7	3
	45p21	29	BTF3	ye25g03 yo65f06	2	9
	45p21	23	BTF4	yd17d06	4	6
15	45p21	44	BTF5	ys04h08	2	4
	3e17	41	genomic?	none	none	1
	132a2	43	genomic?	none	none	3
	132a2	36	genomic?	none	1	none
	132a2	37	histone 2A	ym29g03 yh87a03	3	none
20	75114	24	MHC class 1	ye98g01	1	2
	132a2	39	genomic?	none	none	4
	132a2	27	Ro/SSA	none	3	4
	132a2	22B	NPT1-like	yr42a05 yf09g06	1	7
25	20h20	22E	NPT1-like	none	2	5
30	20h20	NPT1	NPT1	yp74c05	N/A	3

As a final approach, a tiling path with overlapping end sequences from the sample sequence database was generated. Each 3 kb clone within the path was shotgun-sequenced using transposable elements as platforms for dual end sequencing. These individual clones were assembled in conjunction with the end sequences from all bacterial clones in the region. The resulting sequence (Figure 2) was analyzed systematically with BLAST homology searches and the Grail 1.2 program to identify novel open reading frames (ORF) and other gene-like structures. The BLAST homology searches did not produce any probes that had not already been identified by sample sequencing. Grail predicted exons for all the genes in the region, but was only able to assemble the histones into any representative form. A detailed analysis of BLAST homology searches to protein databases identified an enticing homology to a zinc alpha 2 glycoprotein approximately 25 kb upstream of HFE, but the lack of a substantial ORF and the presence of a stop codon suggested that it was a pseudogene. Figure 2 shows the positions, the exon and intron structures, and the relative orientation of transcription of novel genes within this region. Also shown are the positions and transcriptional orientations of the histone genes. A total of 12 histone genes were identified in this study.

In an effort to account for the ESTs that did not associate with the characterized genes in the 250 kb region, the genomic sequence around the putative 3' ends were examined for polyadenylation signals to determine whether certain EST sequences may have originated from genomic DNA contamination in the normalized cDNA libraries used in EST generation. The positions of the 14 ESTs found in this region are indicated in Figure 2 to show those associated with the cDNAs cloned and those which did not associate with genomic DNA of obvious coding potential. Four ESTs corresponded to 3 of the 4 cDNAs cloned from the region (Table 2). One EST encoded a histone H2B.1 gene and another was a repetitive element. Of the remaining 8, 6 EST clones were used as probes of cDNA libraries with negative results. Those sequences representing putative 3' ends of cDNA were searched for the presence of poly (A)+ addition signals. Five of the 13 ESTs which had 3' end sequence, had the sequence ATAAA or ATTAA. Five of the remaining 8 ESTs that did not have a poly (A)+ addition signal had genomic encoded stretches of poly (A) near the end of EST sequence and, therefore, may have been created by oligo d(T) priming of contaminating genomic DNA. This analysis was expanded to include all ESTs in the large-insert bacterial contigs with definitive 3' ends. Of the remaining 26, 15 had 3' end sequence and, of these, 8 had poly (A)+ addition signals. Five of these 8 ESTs were associated with the cloned cDNAs. Of the remaining 7 which did not have poly (A)+ addition signals, 4 had genomic encoded stretches of poly (A).

i. Butyrophilin gene family

The human homolog of the bovine butyrophilin gene (BT) was cloned and mapped to approximately 480 kb centromeric to HFE (Figure 1). BT is a transmembrane protein of unknown function which constitutes 40% of the total protein associated with the fat globule of bovine milk (Jack *et al.* J. Biol. Chem. 265:14481-14486 (1990)). A human homolog of BT has recently been cloned by Tayloer *et al.* (Biochem Biophys Acta 1306:1-4 (1996)). The results in this study indicated that BT is a member of a gene family with at least five other members of the family residing in this region (Figure 1). A comparison of these proteins is shown in Figure 3. The proteins were aligned based on their descending order of relatedness and to minimized gaps in the sequence. Each of the five proteins

display varying degrees of homology to BT. BTF1 (cDNA 21), BTF2 (cDNA 32), BTF5 (cDNA 44), and BTF3 (cDNA 29) are 45%, 48%, 46%, and 49%, identical to BT, whereas BTF4 (cDNA 23), which is more similar to BTF3 (cDNA 29), is only 26% identical. This low degree of identity to BT is largely due to a truncation at the carboxyl terminus of the protein. The BTF family falls into two groups: BTF1 and 2 which are more related to each other than to BT or the other BTF members, and BTF5, 3 and 4, which appear to have a common evolutionary origin. The order of these genes on the chromosome suggests that the BT gene has duplicated two times, giving rise to BTF1 and BTF5. Subsequently, it appears likely these two genes experienced further duplication events to give rise to the other members in their groups.

The three major components of BT, the B-G immunoglobulin superfamily domain (containing the V consensus sequence) (Miller *et al.* Proc. Natl. Acad. Sci. U.S.A. 88:4377-4381 (1991)), the transmembrane region, and the B30-2 exon are found in all of these proteins (with the exception of BTF4 (cDNA 23) which lacks the B30-2 exon by virtue of the carboxyl terminal truncation). The exon B30-2 is a previously noted feature of the MHC class 1 region found approximately 200 kb centromeric to the HLA-A gene (Vernet *et al.*, J. Mol. Evol. 37:600-612 (1993)). In addition this exon is found in several genes of diverse function telomeric to HLA-A namely MOG (approximately 200 kb) and RFP (approximately 1 megabase) (Amadou *et al.* Genomics 26:9-20 (1995)).

The levels of the BTF mRNA were analyzed by northern blot analysis (Figure 4A). The expression of the BTF genes fell into two patterns. BTF1 and BTF2 were expressed as a single major transcript of 2.9 kb and one minor transcript of 5.0 kb. These genes were expressed at high levels in all the tissues tested with the exception of the kidney where the expression level was less. The two genes are 90% identical at the DNA sequence level, therefore, it is possible that the signal observed on the northern blots was the result of cross-hybridization and only one of the two genes was actually expressed. To address this possibility RT-PCR experiments were carried out on a panel of different tissues in order to detect possible tissue dependent expression that would suggest that both genes are expressed. Identical, and thus equivocal, results were obtained with both BTF1 and BTF2 amplification (Figure 4B).

The second group of genes, BTF3-5, are expressed as three (BTF5) (Figure 4A) and two (BTF3 and 4) transcripts ranging from 4.0 to 3.3 kb. BTF5 is expressed at moderate levels in all tissues tested with the exception of the kidney where the expression level is less. RT-PCR experiments showed that mRNA from the BTF5 gene can be found in all tissues tested, including the kidney (Figure 4B). Identical results were obtained with primers from the other genes of this group (data not shown). These genes are also 90% identical to each other at the DNA sequence level (but only 58% identical to BTF1 and 2), hence like BTF1 and BTF2, cross-hybridization could account for the similarity in size and patterns on the northern blots and RT-PCR. This might be particularly true for BTF4 which lacks the B30-2 exon but still hybridizes to larger size transcripts like BTF5 and BTF3.

ii. A gene with similarity to 52 kD Ro/SSA auto-antigen

Located approximately 120 kb telomeric to the HFE gene is a gene, RoRet, that has 58% amino acid similarity to the 52 kD Ro/SSA protein, an auto-antigen of unknown function that is frequently recognized by antibodies in patients with systemic lupus and Sjogren's syndrome (Anderson

et al. Lancet 2:456-560 (1961); Clark *et al. J. Immunol.* 102:117-122 (1969)) (Figures 1 and 2).

Alignment of the predicted amino acid sequence of this cDNA with that of 52 kD Ro/SSA indicated two features associated with the 52 kD Ro/SSA protein: a putative DNA binding cysteine rich motif (C-X-(I,V)-C-X(11-30)-C-X-H-X-(F,I,L)-C-X(2)-C-(I,L,M)-X(10-18)-C-P-X-C) found at the N terminus (Freemont *et al. Cell* 64: 483-484 (1991)) and the B30-2 exon found near the carboxyl terminus, are both conserved in RoRet (Figure 5). Northern blot analysis indicated the RoRet gene was expressed as two major transcripts of 2.8 and 2.2 kb and two minor transcripts of 7.1 and 4.4 kb in all of the tissues on the blot at levels reflective of the RNA amounts as determined by β -actin probing (Figure 6A). Using RT-PCR, expression can also be detected in small intestine, kidney liver, and spleen (Figure 6B).

iii. Two genes with homology to a sodium phosphate transporter

A cDNA for a sodium phosphate transport protein (NPT1) was previously cloned and mapped to 6p21.3 using a somatic cell hybrid panel (Chong *et al. Genomics* 18:355-359 (1993)). NPT1 maps 320 kb telomeric to the HFE gene (Figures 1 and 2). Two additional cDNAs were cloned which show appreciable homology to NPT1 (Figure 5). These genes, NPT3 and NPT4, mapped 1.5 megabases and 1.3 megabases centromeric to the NPT1 gene (Figure 1). Like NPT1, the gene products of NPT3 and NPT4 were extremely hydrophobic, which may reflect a membrane location. Both proteins gave hydrophilicity profiles which were indistinguishable from NPT1 in this study (data not shown). Northern blot analysis indicated that the two genes have different patterns of expression (Figure 6C). NPT3 was expressed at high levels as a 7.2 kb transcript predominately in muscle and heart. Lesser amount of the mRNA were also found in brain, placenta, lung, liver and pancreas. RT-PCR analysis indicated that expression of the proper size PCR fragment for NPT3 was clearly absent in fetal brain, bone marrow and small intestine (Figure 6D). A smaller size fragment was detectable in all tissues with the exception of the liver, which may represent evidence for alternative splicing. Although expression was apparently absent from the kidney by northern blot analysis, it was detectable by RT-PCR. Expression was also noted in the mammary gland, spleen and testis. NPT4, on the other hand, was expressed only in the liver and the kidney as a smear of transcripts approximately 2.6 - 1.7 kb (Figure 6C). RT-PCR confirmed these results, although a small amount of the proper size PCR fragment was also found in the small intestine and testis (Figure 6D). Other tissues showed amplification, but the fragments were of larger and smaller size than that produced by the cDNA 22E positive control. Hence, these two genes which apparently have the structural characteristics of a sodium phosphate transporter, appeared to be under the control of different regulatory mechanism that lead to differential patterns of expression.

2. Sequencing of 235 kb from a Homozygous Ancestral (Affected) Individual

In these studies the entire genomic sequence was determined from an HH affected individual for a region corresponding to a 235,033 bp region surrounding the HFE gene between the flanking markers D6S2238 and D6S2241. The sequence was derived from a human lymphoblastoid cell line, HC14, that is homozygous for the ancestral HH mutation and region. The sequence from the ancestral chromosome (Figure 9) was compared to the sequence of the region in an unaffected individual (Figure 8) disclosed in copending U.S.S.N. 08/724,394 to identify polymorphic sites. A

subset of the polymorphic alleles so defined were further studied to determine their frequency in a collection of random individuals.

The cell line HC14 was deposited with the ATCC on June 25, 1997, and is designated ATCC CRL-12371.

5 a. Cosmid Library Screening

The strategy and methodology for sequencing the genomic DNA for the affected individual was essentially as described in copending U.S.S.N. 08/724,394, hereby incorporated by reference in its entirety. Basically, a cosmid library was constructed using high molecular weight DNA from HC14 cells. The library was constructed in the supercos vector (Stratagene, La Jolla, CA).

10 Colonies were replicated onto Biotrans nylon filters (ICN) using standard techniques. Probes from genomic subclones used in the generation of the sequence of the unaffected sequence disclosed in 08/724,394 were isolated by gel electrophoresis and electroporation. Subclones were chosen at a spacing of approximately 20 kb throughout the 235 kb region. The DNA was labeled by incorporation of ³²P dCTP by the random primer labeling approach. Positively hybridizing clones were isolated to
15 purity by a secondary screening step. Cosmid insert ends were sequenced to determine whether full coverage had been obtained, and which clones formed a minimal path of cosmids through the 235 kb region.

 b. Sample Sequencing

20 A minimal set of cosmid clones chosen to cover the 235 kb region were prepped with the Qiagen Maxi-Prep system. Ten micrograms of DNA from each cosmid preparation were sonicated in a Heat Systems Sonicator XL and end-repaired with Klenow (USB) and T4 DNA polymerase (USB). The sheared fragments were size selected between three to four kilobases on a 0.7% agarose gel and then ligated to BstXI linkers (Invitrogen). The ligations were gel purified on a 0.7% agarose gel and cloned into a pSP72 derivative plasmid vector. The resulting plasmids were transformed into
25 electrocompetent DH5 α cells and plated on LB-carbenicillin plates. A sufficient number of colonies was picked to achieve 15-fold clone coverage. The appropriate number of colonies was calculated by the following equation to generate a single-fold sequence coverage: Number of colonies = size of bacterial clone (in kb)/average sequence read length (0.4 kb). These colonies were prepped in the 96-well Qiagen REAL, and the 5' to 3' DNA Prep Kit, and AGCT end-sequenced with oligo MAP1 using
30 standard ABI Dye Terminator protocols. MAP1 was CGTTAGAACGCGGCTACAAT.

 c. Genomic Sequencing

The MAP1 sequences from the cosmid clones HC182, HC187, HC189, HC195, HC199, HC200, HC201, HC206, HC207, and HC212 were assembled into contigs with the Staden package (available from Roger Staden, MRC). A minimal set of 3 kb clones was selected for
35 sequencing with oligo labeled MAP2 that sits on the opposite end of the plasmid vector. The sequence of MAP2 was GCCGATTCATTAATGCAGGT. The MAP2 sequences were entered into the Staden database in conjunction with the MAP1 sequences to generate a tiling path of 3 kb clones across the region. The plasmid 3 kb libraries were concurrently transformed in 96 well format into pox38UR (available from C. Martin, Lawrence Berkeley Laboratories). The transformants were subsequently
40 mated with JGM (Strathman et al. P.N.A.S. 88:1247-1250 (1991) in 96 well format. All matings of the

3 kb clones within the tiling path were streaked on LB-carbenicillin-kanamycin plates and a random selection of 12 colonies per 3 kb clone was prepped in the AGCT system. The oligos -21: CTGTAAACGACGGCCAGTC, and REV: GCAGGAAACAGCTATGACC were used to sequence off both ends of the transposon. Each 3 kb clone was assembled in conjunction with the end sequence information from all cosmid clones in the region.

In some regions, the coverage of the genomic sequence by cosmids was incomplete. Any gaps in the sequence were filled by using standard PCR techniques to amplify genomic DNA in those regions and standard ABI dye terminator chemistry to sequence the amplification products.

d. Identification of Polymorphic Sites

The assembled sequence of the cosmid clones in connection with the PCR amplified genomic DNA was compared to the genomic sequence of the unaffected individual using the FASTA algorithm. Numeric values were assigned to the sequenced regions of 1 to 235,303, wherein base 1 refers to the first C in the CA repeat of D6S2238 and base 235,303 is the last T in the GT repeat of D6S2241 of the unaffected sequence (Figure 8). Table 1 lists the differences between the two compared sequences. Note that previously disclosed (Feder et al., Nature Genetics 13:399-408 (1996)) polymorphic sites D6S2238 (base 1), D6S2241 (base 235,032), 24d1 (base 41316), and D6S2239 (base 84841) are not included in the list of new polymorphisms, although they are provided for reference in a footnote to the Table and were observed in the ancestral sequence. In the Table, a single base change such as C-T refers to a C in the unaffected sequence at the indicated base position that occurred as a T in the corresponding position in the affected sequence. Similarly, an insertion of one or more bases, such as TTT in the affected sequence, is represented as "TTT INS" between the indicated bases of the unaffected sequence. A deletion of one or more bases occurring in the affected sequence, such as AAA DEL, is represented as the deletion of the indicated bases in the unaffected sequence.

e. Characterization of Rare Polymorphisms

In this study about 100 of the polymorphisms of Table 1 were arbitrarily chosen for further characterization. Allele frequencies in the general population were estimated by OLA analysis using a population of random DNAs (the "CEPH" collection, J. Dausset et al., Genomics 6(3):575-577 (1990)). These results are provided in Table 2.

One single base pair difference, occurring at base 35983 and designated C182.1G7T/C (an A to G change on the opposite strand) was present in the ancestral chromosome and rare in the random DNAs. This change occurred in a noncoding region of the hemochromatosis gene near exon 7 approximately 5.3 kb from the 24d1 (Cys282Tyr) mutation. OLA was used to genotype 90 hemochromatosis patients for the C182.1G7T/C base pair change. The frequency for C occurring at this position in the patients was 79.4% as compared to 5% in the random DNAs. Eighty-five of the 90 patients assayed contained identical 24d1 and C182.1G7T/C genotypes. Four of the remaining 5 patients were homozygous at 24d1 and heterozygous at C182.1G7T/C; one was heterozygous at 24d1 and homozygous at C182.1G7T/C. The primers used for this analysis were as follows.

PCR primers for detection:

182.1G7.F 5'-GCATCAGCGATTAACCTTCTAC -3'

182.1G7.R 5'-TTGCATTGTGGTCAAATCAGGG -3'

For the detection assay, the biotinylated primers used were as follows.

5 182.1G7.C 5' (b)CTGAGTAATTGTTTAAGGTGC -3'

182.1G7.T 5' (b)CTGAGTAATTGTTTAAGGTGT -3'

The phosphorylated digoxigenin-labeled primer used was:

182.1G7.D 5' (p)AGAAGAGATAGATATGGTGG -3'

10 A further rare single base pair change was detected at 61,465bp. The inheritance pattern of this polymorphism, C195.1H5C/T (a G to A change on the opposite strand), is identical to that of 24d1. The frequency of T occurring at that position (C195.1H5T) observed in a set of 76 patients was 78.5% as compared to 5% in random individuals.

15 PCR primers for detection:

1951H5.3F 5'-GAATGTGACCGTCCCATGAG-3'

1951H5.3R 5'-CAACTGAATATGCAGAAAAAAGTACACC-3'

For the detection assay, the biotinylated primers used were:

1951H5.3.4 5' (b)AGTAGCTGGGACTCACGGTGT-3'

20 1957H5.3.5 5' (b)AGTAGCTGGGACTCACGGTGC-3'

The phosphorylated digoxigenin-labeled primer used was:

1951H5.3.6 5' (p)GCGCCACCACTCCCAGCTCAT-3'

25 These rare alleles are thus preferred surrogate markers for 24d1 and are especially useful in screening assays for the likely presence of 24d1 and/or 24d2.

All publications, patents, and patent applications cited herein are hereby incorporated by reference in their entirety.

WHAT IS CLAIMED IS:

- 1 1. An oligonucleotide comprising at least 8 to about 100 consecutive bases from the
2 sequence of Figure 9, or the complement of the sequence, wherein the at least 8 to about 100
3 consecutive bases includes at least one polymorphic site of Table 1.
- 1 2. The oligonucleotide of claim 1, wherein the polymorphic site is selected from the
2 group consisting of base 35983 or base 61465.
- 1 3. An oligonucleotide pair selected from the sequence of Figure 9 or its complement for
2 amplification of a polymorphic site of Table 1.
- 1 4. An isolated nucleic acid molecule comprising about 100 consecutive bases to about
2 235 kb substantially identical to the sequence of Figure 9, wherein the DNA molecule comprises at
3 least one polymorphic site of Table 1.
- 1 5. The isolated nucleic acid molecule of claim 4, wherein the polymorphic site is selected
2 from the group consisting of base 35983 or base 61465.
- 1 6. The isolated nucleic acid molecule of claim 4, wherein the nucleic acid is selected
2 from the group consisting of cDNA, RNA, or genomic DNA.
- 1 7. A polypeptide encoded by the nucleic acid molecule of claim 4.
- 1 8. An antibody which specifically recognizes the polypeptide of claim 7.
- 1 9. A method to determine the presence or absence of the common hereditary
2 hemochromatosis (HFE) gene mutation in an individual comprising:
3 providing DNA or RNA from the individual; and
4 assessing the DNA or RNA for the presence or absence of a haplotype of Table 1,
5 wherein, as a result, the absence of a haplotype of Table 1 indicates the likely absence of the
6 HFE gene mutation in the genome of the individual and the presence of the haplotype indicates the
7 likely presence of the HFE gene mutation in the genome of the individual.
- 1 10. The method of claim 9, wherein the method further comprises assessing the RNA or
2 DNA for the presence of at least one of the polymorphisms 24d1, 24d2, HHP-1, HHP-19, or HHP-29;
3 or microsatellite repeat alleles 19D9:205, 18B4:235, 1A2:239, 1E4:271, 24E2:245, 2B8:206, 3321-
4 1:98, 4073-1:182, 4440-1:180, 4440-2:139, 731-1:177, 5091-1:148, 3216-1:221, 4072-2:170, 950-
5 1:142, 950-2:164, 950-3:165, 950-4:128, 950-6:151, 950-8:137, 63-1:151, 63-2:113, 63-3:169, 65-

1:206, 65-2:159, 68-1:167, 241-5:108, 241-29:113, 373-8:151, 373-29:113, D6S258:199, D6S265:122, D6S105:124, D6S306:238, D6S464:206, or D6S1001:180.

11. The method of claim 9, wherein the haplotype comprises at least two polymorphic sites of Table 1.

12. The method of claim 11, wherein one of the at least two polymorphic sites of Table 1 is at base 35983 or 61465.

13. The method of claim 11, wherein the haplotype comprises at least three polymorphic sites of Table 1.

14. A method to determine the presence or absence of the common hereditary hemochromatosis (HFE) gene mutation in an individual comprising:
providing DNA or RNA from the individual; and
assessing the DNA or RNA for the presence or absence of a genotype defined by a polymorphic allele of Table 1,
wherein, as a result, the absence of a genotype defined by a polymorphic allele of Table 1 indicates the likely absence of the HFE gene mutation in the genome of the individual and the presence of the genotype indicates the likely presence of the HFE gene mutation in the genome of the individual.

15. The method of claim 15, wherein the polymorphic allele occurs in less than about 50% of a random population of individuals.

16. The method of claim 15, wherein the polymorphic allele occurs in less than about 25% of a random population of individuals.

17. The method of claim 15, wherein the polymorphic allele occurs in less than about 5% of a random population of individuals.

18. The method of claim 15, wherein the genotype is C182.1G7C or C195.1H5T.

19. A kit comprising one or more oligonucleotides of claim 1.

20. A kit comprising at least one oligonucleotide pair of claim 3.

21. A culture of lymphoblastoid cells having the designation ATCC CRL-12371.

- 1 22. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 BTF1.
- 1 23. The isolated nucleic acid sequence of claim 23, wherein the nucleic acid is cDNA.
- 1 24. The polypeptide encoded by the isolated nucleic acid sequence of claim 23.
- 1 25. A vector comprising the nucleic acid sequence of claim 23.
- 1 26. A host cell stably transfected with the nucleic acid sequence of claim 23.
- 1 27. An antibody that is specifically immunoreactive with the polypeptide of claim 24.
- 1 28. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 BTF2.
- 1 29. The isolated nucleic acid sequence of claim 28, wherein the nucleic acid is cDNA.
- 1 30. The polypeptide encoded by the isolated nucleic acid sequence of claim 28.
- 1 31. A vector comprising the nucleic acid sequence of claim 28.
- 1 32. A host cell stably transfected with the nucleic acid sequence of claim 28.
- 1 33. An antibody that is specifically immunoreactive with the polypeptide of claim 30.
- 1 34. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 BTF3.
- 1 35. The isolated nucleic acid sequence of claim 34, wherein the nucleic acid is cDNA.
- 1 36. The polypeptide encoded by the isolated nucleic acid sequence of claim 34.
- 1 37. A vector comprising the nucleic acid sequence of claim 34.
- 1 38. A host cell stably transfected with the nucleic acid sequence of claim 34.
- 1 39. An antibody that is specifically immunoreactive with the polypeptide of claim 36.

- 1 40. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 BTF4.
- 1 41. The isolated nucleic acid sequence of claim 40, wherein the nucleic acid is cDNA.
- 1 42. The polypeptide encoded by the isolated nucleic acid sequence of claim 40.
- 1 43. A vector comprising the nucleic acid sequence of claim 40.
- 1 44. A host cell stably transfected with the nucleic acid sequence of claim 40.
- 1 45. An antibody that is specifically immunoreactive with the polypeptide of claim 42.
- 1 46. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 BTF5.
- 1 47. The isolated nucleic acid sequence of claim 46, wherein the nucleic acid is cDNA.
- 1 48. The polypeptide encoded by the isolated nucleic acid sequence of claim 46.
- 1 49. A vector comprising the nucleic acid sequence of claim 46.
- 1 50. A host cell stably transfected with the nucleic acid sequence of claim 46.
- 1 51. An antibody that is specifically immunoreactive with the polypeptide of claim 48.
- 1 52. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 NTP-3.
- 1 53. The isolated nucleic acid sequence of claim 52, wherein the nucleic acid is cDNA.
- 1 54. The polypeptide encoded by the isolated nucleic acid sequence of claim 52.
- 1 55. A vector comprising the nucleic acid sequence of claim 52.
- 1 56. A host cell stably transfected with the nucleic acid sequence of claim 52.
- 1 57. An antibody that is specifically immunoreactive with the polypeptide of claim 54.

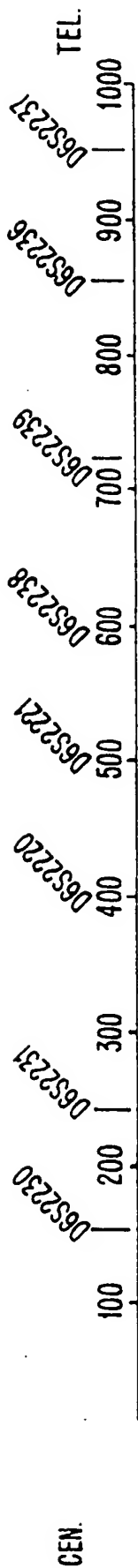
- 1 58. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 NTP-4.
- 1 59. The isolated nucleic acid sequence of claim 58, wherein the nucleic acid is cDNA.
- 1 60. The polypeptide encoded by the isolated nucleic acid sequence of claim 58.
- 1 61. A vector comprising the nucleic acid sequence of claim 58.
- 1 62. A host cell stably transfected with the nucleic acid sequence of claim 58.
- 1 63. An antibody that is specifically immunoreactive with the polypeptide of claim 60.
- 1 64. An isolated nucleic acid sequence comprising a sequence substantially identical to
2 RoRet.
- 1 65. The isolated nucleic acid sequence of claim 64, wherein the nucleic acid is cDNA.
- 1 66. The polypeptide encoded by the isolated nucleic acid sequence of claim 64.
- 1 67. A vector comprising the nucleic acid sequence of claim 64.
- 1 68. A host cell stably transfected with the nucleic acid sequence of claim 64.
- 1 69. An antibody that is specifically immunoreactive with the polypeptide of claim 66.
- 1 70. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of BTF1.
- 1 71. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of BTF2.
- 1 72. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of BTF3.
- 1 73. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of BTF4.
- 1 74. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of BTF5.

1 75. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of NPT3.

1 76. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of NPT4.

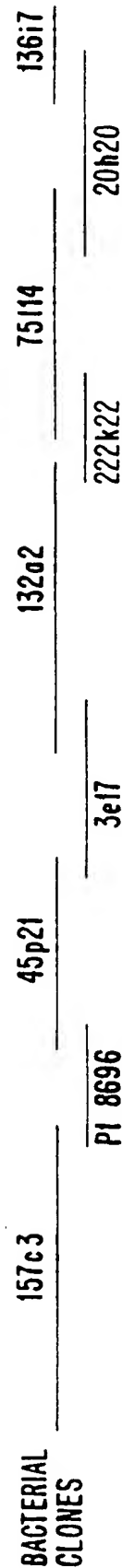
1 77. An isolated nucleic acid sequence comprising at least 18 contiguous nucleotides
2 substantially identical to 18 contiguous nucleotides of RoRet.

1/162



y899g1

YAC



EXPRESSED
SEQUENCE
FRAGMENTS



SEQUENCED REGION

FIG. 1.

2/162

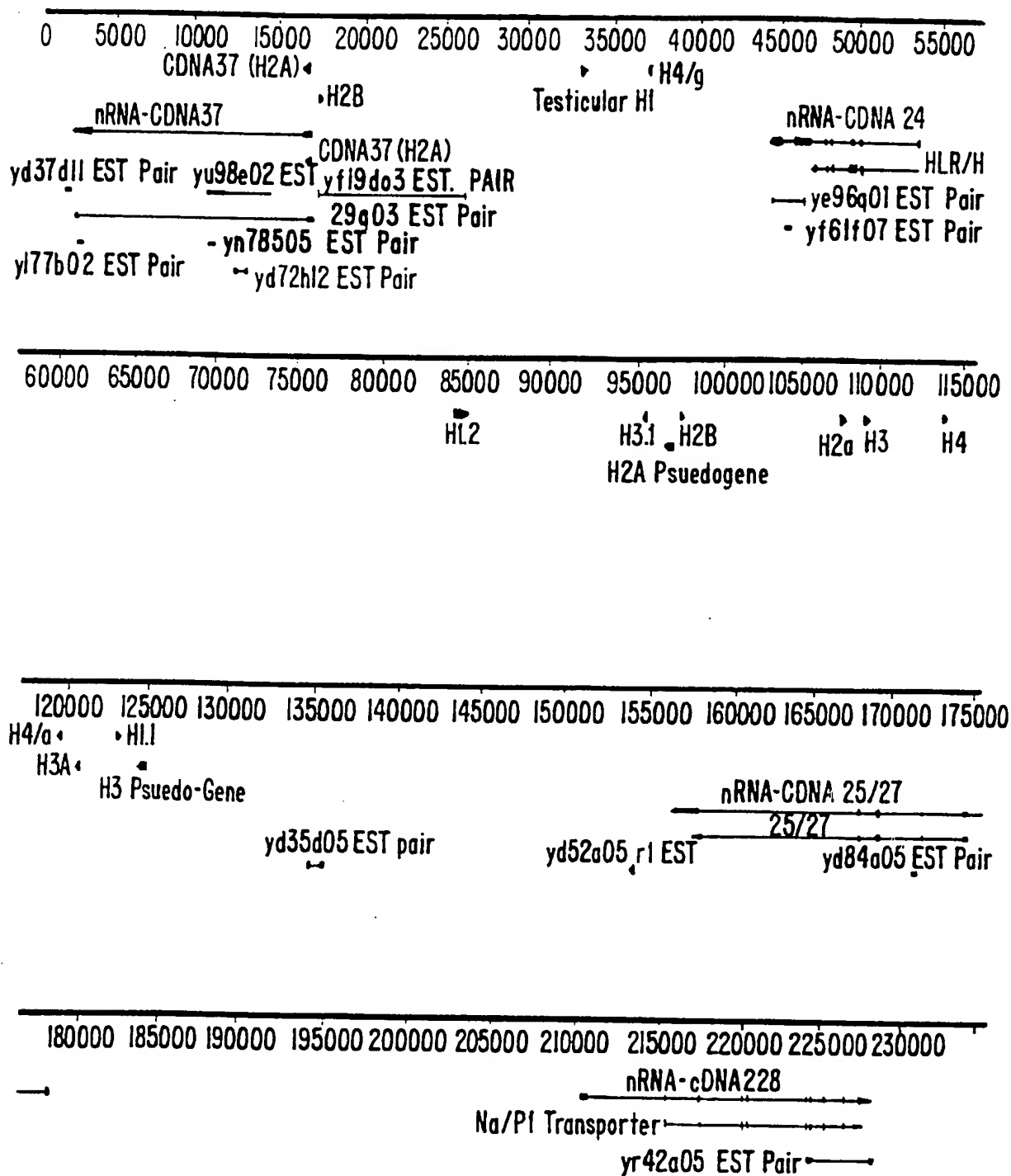


FIG. 2.

3/162

```

BT      --MAVFPSSGLPRCL---LTLILLQLPKLDSAPFDVIGPPEPILAVVGEDAELPCRLSPN
BTf1    MESAAALHFSRPAS----LLLLLLSLCALVSAQFIVVGPTDPILATVGENTTLRCHLSPE
BTf2    MEPAAALHFSLPASLLLLLLLLLLLLSLCALVSAQFTVVGPNPILAMVGENTTLRCHLSPE
BTf5    MKMASFLAFLLLNFR---VCLLLLQLLMPHSAQFSVLGPGSGPILAMVGEDADLPCHLFPT
BTf3    MKMASSLAFLLLNFH---VSLFLVQLLTPCSAQFSVLGPGSGPILAMVGEDADLPCHLFPT
BTf4    MKMASSLAFLLLNFH---VSLLLVQLLTPCSAQFSVLGPGSGPILAMVGEDADLPCHLFPT
      *          . * * . *      * * * * *      * * * * *      * * * * *

BT      ASAEHLELRWFRKKVSPAVLVHRDGREQEAEQMPEYRGRATLVQDGIAGKGRVALRIRGVR
BTf1    KNAEDMEVRWFRSQSPAVFVYKGGRETEEQMEEYRGRITFVSKDISRGSVALVIHNIT
BTf2    KNAEDMEVRWFRSQSPAVFVYKGGRETEEQMEEYRGRITFVSKDINRGSVALVIHNVT
BTf5    MSAETMELKWVSSSLRQVVNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVT
BTf3    MSAETMELRWVSSSLRQVVNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVT
BTf4    MSAETMELKWVSSSLRQVVNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVT
      * * . * . *      * *      *      *      * * * * .      *      * * * * .

BT      VSDDGEYTCFFREDGSYEEALVHLKVAALGSDPHISMQVQENGEICLECTSVGWYPEPQV
BTf1    AQENGTYRCYFQEGRSYDEAILHLVAGLGSKPLISMRGHEDGGIRLECISRGWYPKPLT
BTf2    AQENGIYRCYFQEGRSYDEAILRLVAGLGSKPLIEIKAQEDGSIWLECISGGWYPEPLT
BTf5    ASDSGKYLICYFQDGFYEKALVELKVAALGSDLHVDVKGYKDGGIHLECRSTGWYPQPQI
BTf3    ASDSGKYLICYFQDGFYEKALVELKVAALGSDLHIEVKGYEDGGIHLECRSTGWYPQPQI
BTf4    ASDSGKYLICYFQDGFYEKALVELKVAALGSLNHLVEVKGYEDGGIHLECRSTGWYPQPQI
      . * * * * .      * . .      * * * * *      . .      * * * * *      * * * * *

BT      QWRTSKGEKFPSTSESERNPDEEGLFTVAASVIIRDSTSTKNVSCYIQNLLLGQEKKEVEISI
BTf1    VWRDPYGGVAPALKEVSMPPADGLFMVTTAVIIRDKSVRNMSCSINNTLLGQKKESVIFI
BTf2    VWRDPYGEVVPALKEVSIADADGLFMVTTAVIIRDKYVRNVSCSVNNTLLGQEKETVIFI
BTf5    QWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSCITRSSLLGLEKTASISI
BTf3    KWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNSLLGLEKTASISI
BTf4    QWSNAKGENIPAVEAPVVADGVGLYEVAASVIMRGSSGEGVSCIIRNSLLGLEKTASISI
      *      *      *      *      * * . * . . * * .      . * *      * * *      * * *

BT      PASSLPRLTPWIVAVAV-----ILMVLGLLTIGSIFFTWRLYNER-----
BTf1    PESFMPSPVSPCAVALP-----IIVVILMPIAVCIYWINKLQKEKKILSGEK
BTf2    PESFMPSPVSPCAVALP-----IIVVILMPIAVCIYWINKLQKEKKILSGEK
BTf5    ADPFFRSAQRWIAALAR-----TLPVLLLLLLGGAGYFLWQQQEEKKTQFRKK
BTf3    ADPFFRSAQPWIAALAG-----TLPISLLLLLAGASYFLWRQQKEKIALSRET
BTf4    ADPFFRSAQPWIAALAG-----TLPISLLLLLAGASYFLWRQQKEITALSSEI
      *          . . . . .      *

BT      PRER-----RNEFS-----SKERLLEELKWKKATLHA-----
BTf1    EFERETREIALKELEKERVQKEEELQVKEKLQEELRWRRTFLHA-----
BTf2    KVEQE-----EKE-----IAQQLQEELRWRRTFLHA-----
BTf5    KREQELREMAWSTMKQEQS-----TRVKLLEELRWRSIQYASRGERHSAYNEWKKALF
BTf3    EREREMKEMGYAATEQEIS-----LREKLQEELKWRKIQYMARGEKSLAYHEWKMAKF
BTf4    ESEQEMKEMGYAATEREIS-----LRESLQEELKRKKSST-----
      *          *          *      * * * .

BT      --VDVTLDPDTAHPHFLYEDSKSVRLSDSRQK---LPEKTERFDSWPCVLGRETFSTSGR
BTf1    --VDVVLDPDTAHPDLFLSEDRRSVRRCPFRHLGESVPDNPERFDSQPCVLGRESFASGK
BTf2    --ADVVLDPDTAHPDLFLSEDRRSVRRGPPYRQR---VPDNPERFDSQPCVLGWESFASGK
BTf5    KPADVILDPKTANPILLVSEDQRSVQRAKEPQD---LPDNPERFNWHYCVLGCESFISGR
BTf3    KPADVILDPDTANAILLVSEDQRSVQRAEPRD---LPDNPERFEWRYCVLGCENFTSGR
BTf4    -----

BT      HYWEVEVGDRTDWAIGVCRENVMKK-GFDPMTPENGFWAVELY-GNGYWALTPLRTPPLPL
BTf1    HYWEVEVENVIEWTVGVCRDSVERK-GEVLLIPQNGFWTLEMH-KGQYRAVSSPDRIPLPL
BTf2    HYWEVEVENVMVWTVGVCRHSVERK-GEVLLIPQNGFWTLEMF-GNQYRALSSPERILPL
BTf5    HYWEVEVGDRKEWHIGVCSKNVQRK-GWVKMTPENGFWTMGLTDGNKYRTLTPRTNLKL
BTf3    HYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGWYTMGLTDGNKYRALTEPRTNLKL
BTf4    -----

```

Figure 3 (Page 1 of 2)

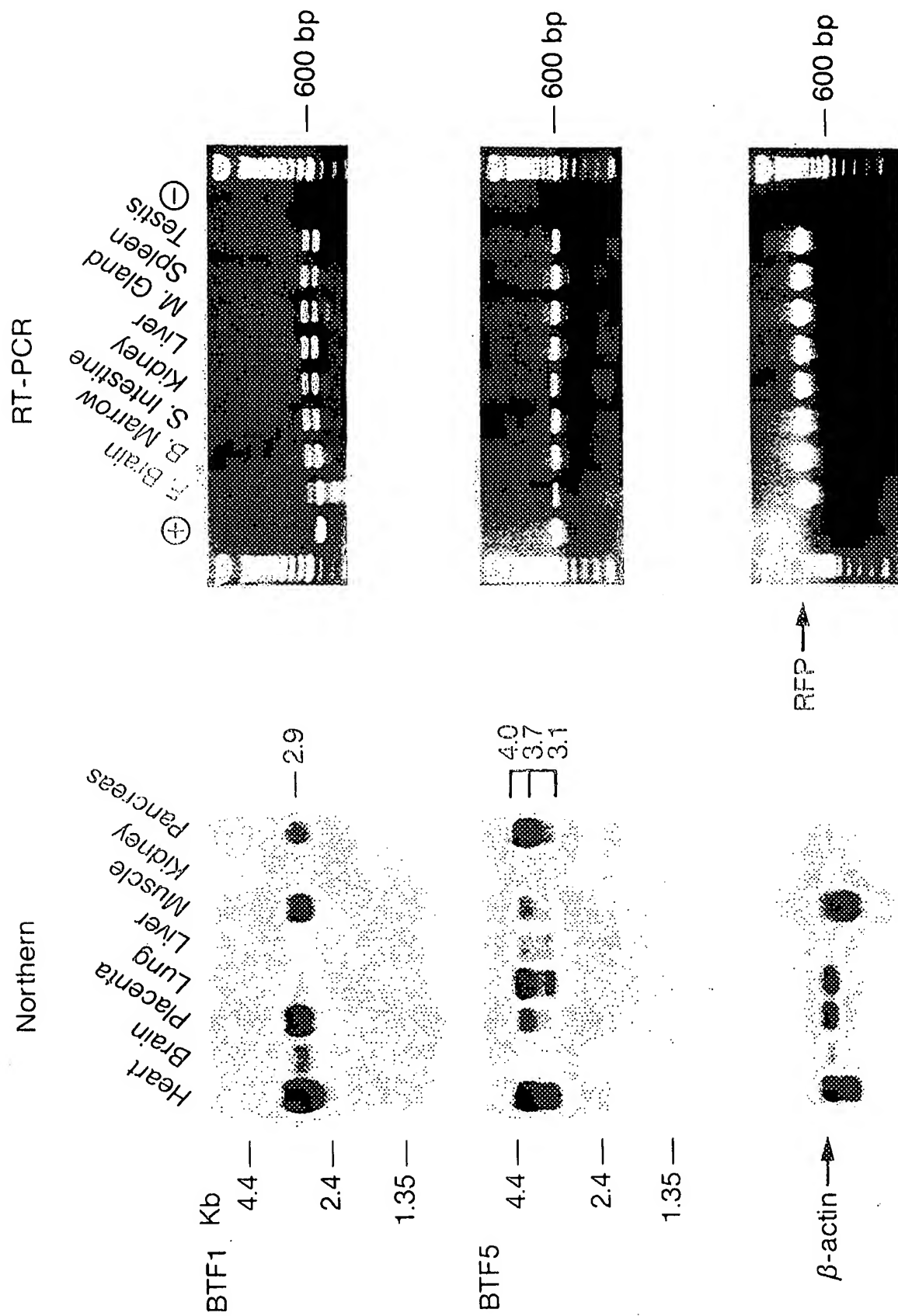
4/162

BT AGPPRRVGIFLDYESGDISFYNMNDGSDIYTFESNVTFSGPLRPFFCLWSSGKKPLTICPI
BTF1 KESLCRVGVFLDYEAGDVSYNMRDRSHIYTCPRSAFSPVVRPFFRLGC-EDSPIFICPA
BTF2 KESLCRVGVFLDYEAGDVSYNMRDRSHIYTCPRSAFTVPVRPFFRLGS-DDSPIFICPA
BTF5 PKPPKKVGVFLDYETGDISFYNAVDGSHIHTFLDVSEALYPVFRILTLEPTALSICPA
BTF3 PEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPI
BTF4 -----

BT ADGPERVTVIANAQDLSKEIPLSPMGEESAPRDADTLHSLIPTQPSQGAP-----
BTF1 LTGANGVTVP-----EEGLTLHRVGTHQSL-----
BTF2 LTGASGVMVP-----EEGLKLHRVGTHQSL-----
BTF5 -----
BTF3 PKEVESSPDPLVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNH
BTF4 -----

BT -----
BTF1 -----
BTF2 -----
BTF5 -----
BTF3 KLQARTEALY
BTF4 -----

5/162



42. 716

77

		CYSTEINE-RICH DOMAIN																			
52 kD	Ro	MASAARLTMM	EEVTCP	ICLDPF	VEPVS	IECGHS	FCQEC	ISQVG	KGGG	-----	VCPVCR	QRFLL	KNL	RPNR	QLAM	MVN					
RoRet		MASTTSTK	KMMEE	ATCS	ICLS	MTNP	VS	INCGH	SCHLC	ITDFF	KNPS	QKQL	RQET	FC	CP	QCR	APF	HMD	SL	RP	NK
		***	**	**	**	**	**	**	**	**	**	**	*	**	**	*	**	**	*	**	**
52 kD	Ro	NLKISQ	EARE	GTQ	GRC	AVH	GER	LHL	FCE	KDG	KAL	CW	CAQ	SKK	H	R	D	H	A	M	V
RoRet		ALKKT	DQEM	-----	SCEE	HGE	QF	HL	FCE	DE	G	Q	L	I	C	W	R	C	E	R	A
		***	**	*	*	**	**	*	*	**	*	*	*	*	*	*	*	*	*	*	*
52 kD	Ro	EVEIA	KRAD	WK	KT	VET	Q	K	S	R	I	H	A	E	F	V	Q	K	N	F	L
RoRet		KLST	AM	R	I	T	K	W	E	K	V	Q	I	R	Q	K	I	R	S	D	F
		*	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
52 kD	Ro	SALE	L	Q	E	V	I	I	V	L	R	S	E	S	W	N	L	K	D	L	I
RoRet		SAQ	L	L	Q	N	V	N	D	T	L	S	R	S	W	A	V	K	L	E	T
		**	***	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
52 kD	Ro	SIPG	NE	R	F	D	S	Y	P	M	V	L	G	A	H	F	H	S	G	K	H
RoRet		NQD	T	S	S	R	R	F	T	A	F	P	C	V	L	G	E	G	F	T	S
		**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
52 kD	Ro	HLQ	V	P	P	C	Q	V	G	I	F	L	D	Y	E	A	G	M	V	S	F
RoRet		HLH	E	Q	P	L	L	V	G	I	F	L	D	Y	E	A	G	V	V	S	F
		**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

FIG. 5A.

8/162

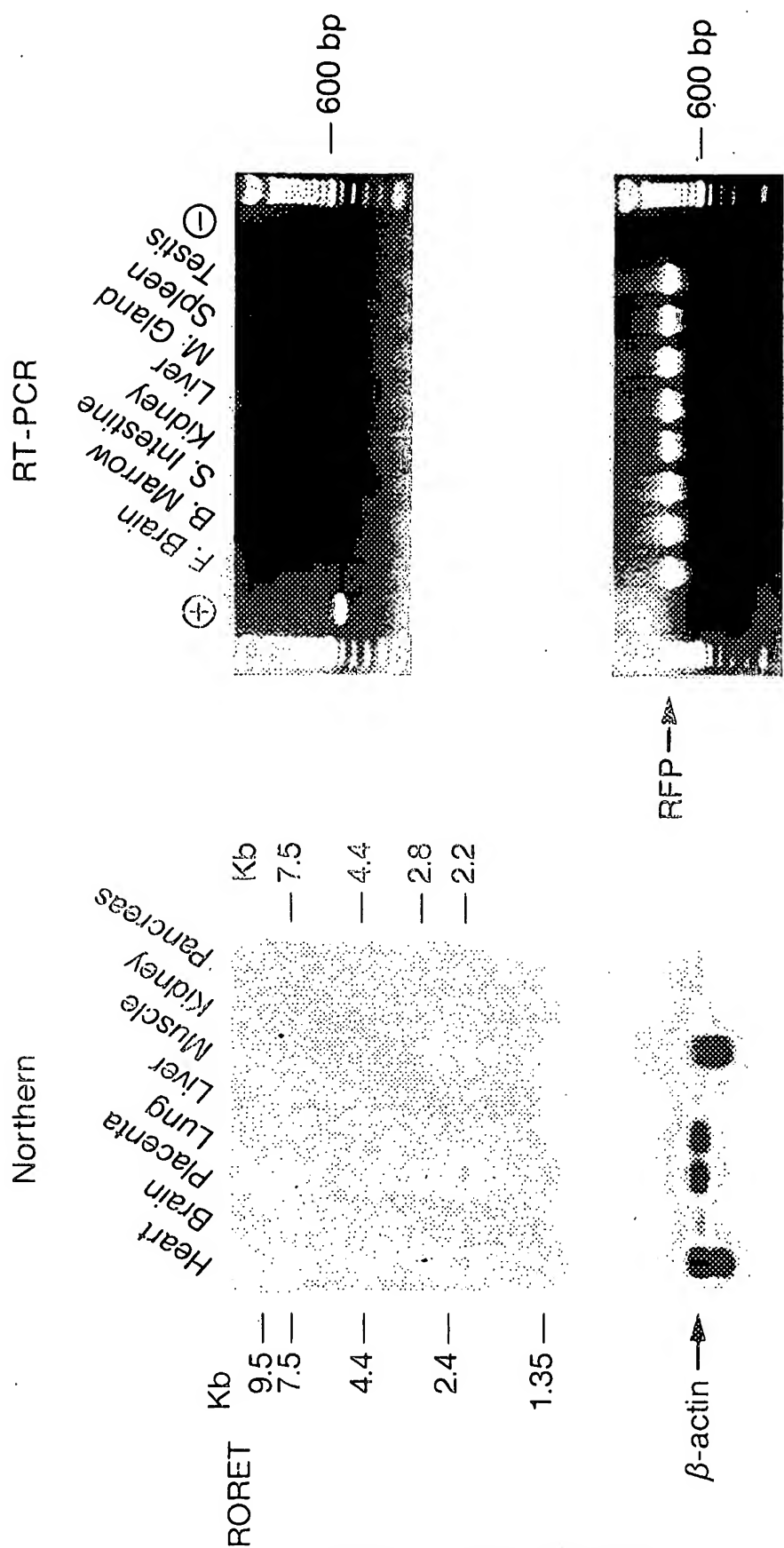


FIG. 6B.

FIG. 6A.

9/162

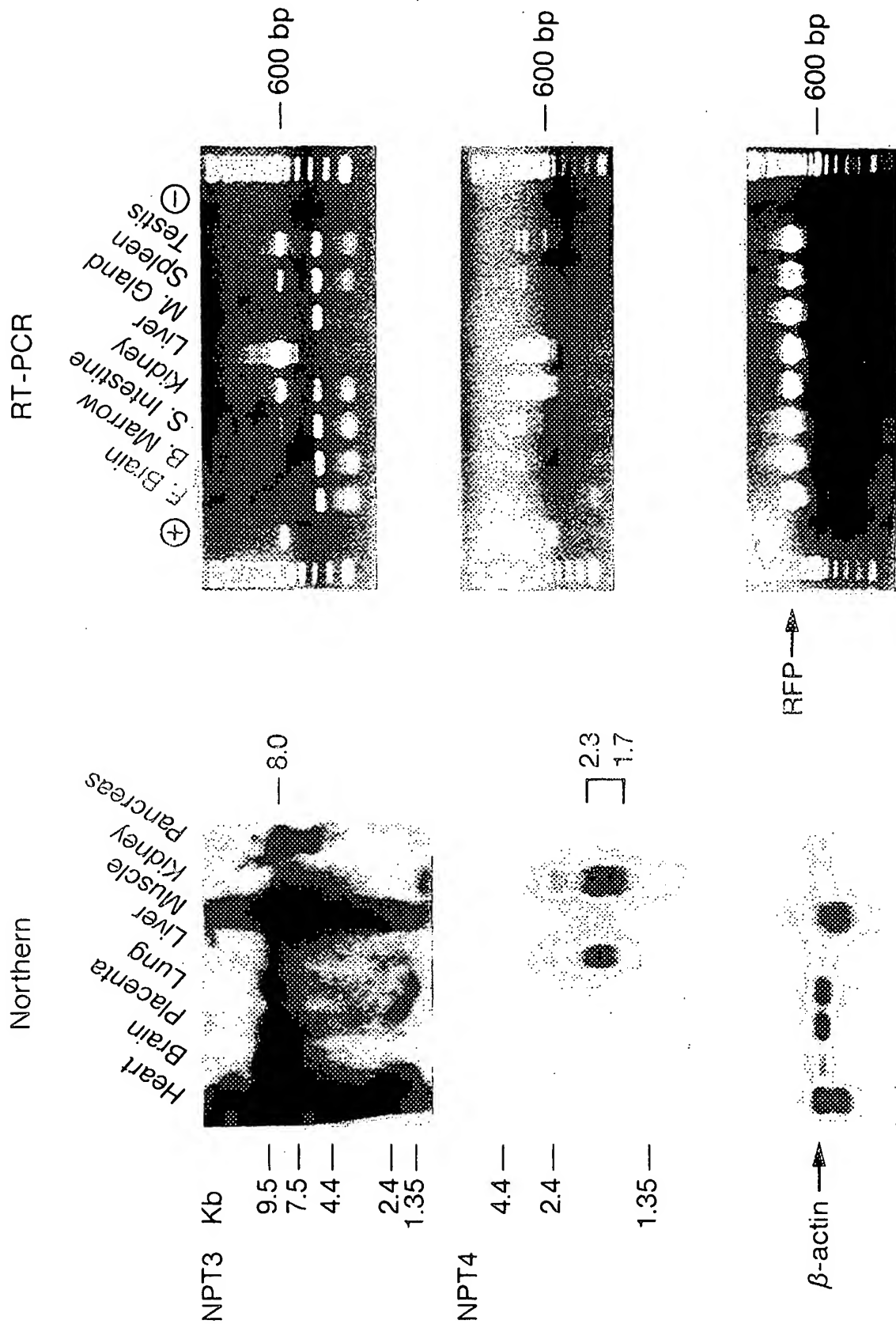


FIG. 6D.

FIG. 6C.

10/162

>CDNA21

cgacccacgcgtccgaacatggcgacctaggagaaaggaagaacaattttttctcctcttttgggaagg
tttgctctagtagtgctgtgcccctgggcagattggagagaagaggagcactggagaatcgctcgaga
accagcggagaaaaagaaaaagcaacgtttaattctagaaggcctcctgtccctgcctgctctgggtgctc
atggaatcagctgctgcccctgcacttctcccggccagcctccctcctcctcctcctcagcctgtgtg
cactggtctcagcccagtttattgtcgtggggccactgatcccatcttgccacaggttgagaaaaacac
tacgttacgctgccatctgtcacccgagaaaaatgctgaggacatggaggtgcggtggttcgggtctcag
ttctcccccgagtggtttgtgtataaagggtggcagagagagaacagaggagcagatggaggagtaccgag
gaagaaccacctttgtgagcaaagacatcagcaggggcagcgtggccctggtcatacacaacatcacagc
ccaggaaaaacggcacctaccgctgttacttccaagaaggcaggtcctacgatgaggccatcctgcacctc
gtagtggcaggactaggctctaagcccctcatttcaatgaggggcatgaagacgggggcatccggctgg
agtgcatacttagaggggtggtacccaaagcccctcacagtgtggaggggaccctacgggtgggggtgcgcc
tgccctgaaagaggtctccatgcctgatgcagacggcctcttcatggtcaccacggctgtgatcatcaga
gacaagtctgtgaggaacatgtcctgctctatcaacaacaccctgctcggccagaagaaagaaagtgtca
tttttattccagaatcctttatgcccagtggtctcctgtgcagtgccctgcctatcattgtggttat
tctgatgataccattgccgtatgcatctattggatcaacaaactccaaaaggaaaaaaagattctgtca
gggaaaaaggagtttgaacgggaaacaagagaaaattgctctaaaggaaactggagaaagaacgtgtgcaaa
aagaggaagaacttcaagtaaaagagaaaacttcaagaagaattgcatggagaaagaacattcttacatgc
tgttgatgtggtcctggatccagacaccgctcatcccgatctcttctcctgtcagaggaccggagaaagtgtg
agaaggtgccccttcaggcacctaggggagagcgtgcctgacaaccagagagattcgacagtcagcctt
gtgtcctaggccgggagagcttcgcttcagggaacattactgggaggtggaggtggaaaacgtgattga
gtggactgtgggggtctgtagagacagtggttgagaggaaaggggaggtcctgctgattcctcagaatggc
ttctggaccttgagatgcataaagggaataaccgggcccgtgtcctcccctgataggattctccctttga
aggagtccctttgcccgggtgggcgtcttctcctggactatgaagctggagatgtctccttctacaacatgag
ggacagatcgcacatctacacatgtccccgttcagccttttccgtgcctgtgaggcccttcttcagggtg
gggtgtgaggacagccccatcttcatctgccctgcactcacaggagccaatggggtcacgggtgcctgaag
agggcctgacacttcacagagtggggacccaccagagcctatagaatcaattccttggtctcacagccat
gtagacaagccctggtcatctcagcagccaccgcacaacaccctggtggaagacacgcccctcctcccct
ctggtcacacaagagaacatcttccagctgcctctttcacacccactacagacctcagccccagttttct
cctcctcactaggctgtgttttttagtagttcctttgcttgtaactatgggatgggatccaggcatagga
actagttgttacacagctcccagccaagaagaaagtgtgagaagttgatgggcagcaaacctgctgttta
acatcaggggtgaccacattaagcccagttatccagttggcaccagaagatatggacttggaaatgaggcct
acaggggttcaccaggtatgtaagaggagagaggaatccacaggaccaccagagaggagagggaaccagata
tgcatgcagagatagaggaagtggaaacagagagctgggagggaccaaggttgtaaggggtggctaagtc
ccaccataacagctaaggggacctgggagatgatggtcatttccaccagccccaggtattccagagcg
cacatccacagggcctggacctgggatgaagatgaatgaagaacatggatgcacgtggatgtgatttggt
caggtgtccctgcagttggcaaggagtcagtactcagtcctgagtggtggctgaaatttgagggtcctggc
tgagccaaggagtaatggaccagatctacctcagttatcaagttcagtggggacaccagtggttcaaac
ttcctgggtttcatgatatacttgagacgccttacaaatgatggaggattccaaagagtttttgtttatttg
ggttaatatatttggttatttatggcatttgagattgaaactaagaaatgttttaatttattacctttac
aacattttatttacattacatacatatttacaacatttatttaatttatattaaaatagcatgaataagc
caatttatagggttaataataagtagaatgtttgtgaaaaataagtatggtatccaaagcaaaataaatttta
ttgtgaagtgtgaaaaaaaaaaaaaaaaaaaaa

>CDNA29

acgcgtccgcttcggaatgagagactcaaccataatagaaagaatggagaactattaaccaccattcttc
agtgggctgtgatttttcagagggggaatacataagaaatggttttccatactggaacccaaaggtaaagaca
ctcaaggacagacattttttggcagagcatagatgaaaaatggcaagttccctggctttccttctgctcaac
tttcatgtctccctcttcttggccagctgctcactccttgctcagctcagttttctgtgcttgaccct
ctgggcccctcctggccatggtgggtgaagacgctgatctgccctgtcacctgttcccgaccatgagtg
agagaccatggagctgaggtgggtgagttccagcctaaggcaggtggtgaacgtgtatgcagatggaaag
gaagtggaaagacaggcagagtgaccatatcgaggggagaacttcgattctgcgggatggcatcactgcag
ggaaggctgctctccgaatacacacagctcacagcctctgacagtggaagtaacttggttattttccaaga
tggtgacttctacgaaaaagccctgggtggagctgaaggttgacgattgggttctgatcttcacattgaa
gtgaaggggttatgaggatggaggatccatctggagtgacaggtccactggctgggtaccccccaaccccaaa
taaagtggagcgacaccaaggagagaacatcccggctgtggaagcacctgtggttgagatggagtggtg
cctgtatgcagtagcagcatctgtgatcatgagaggcagctctggtgggggtgtatcctgcacatcaga

Figure 7 (1 of 6)

11/162

aattccctcctcggcctggaaaagacagccagcatatccatcgcagaccccttcttcaggagcgcccagc
cctggatcgcgccctggcagggaccctgcctatctcgttgctgcttctcgcaggagccagttacttctt
gtggagacaacagaaggaaaaaattgctctgtccaggagagacagaaagagagcgagagatgaaagaaatg
ggatacgctgcaacagagcaagaaataagcctaagagagagaagctccaggaggaaactcaagtggaggaaaa
tccagtacatggctcgtggagagaagtctttggcctatcatgaatggaaaatggccctcttcaaactgc
ggatgtgattctggatccagacacggcaaacgccatcctccttgtttctgaggaccagaggagtgtgcag
cgtgctgaagagccgcgggatctgccagacaaccctgagagatttgaatggcgttactgtgtccttggct
gtgaaaacttcacatcaggagagacattactgggaggtggaagtgggggacagaaaagagtggcatattgg
ggtatgtagtaagaacgtggagaggaaaaaagggttgggtcaaaatgacaccgggagaacggatactggact
atgggcctgactgatgggaataagtatcgggctctcactgagcccagaaccaactgaaacttctgagc
ctcctaggaaagtggggatcttcttgactatgagactggagagatctcgttctataatgccacagatgg
atctcatatctacacctttccgcacgcctctttctctgagcctctatatcctgttttcagaattttgacc
ttggagcccactgcccctgaccatttggccaataccaaaagaagtagagagttcccccgatcctgacctag
tgctgatcattccctggagacaccactgacccgggcttagctaataaagtggggagcctcaggctga
agtaacatctctgcttctccctgcccaccctggagctgaggtctcccttctgcaacaaccaatcagaac
cataagctacaggcacgcactgaagcactttactgatattcattccattattccatatgacagttgtttt
gagtttcgtaccaccttattgtccccttatacagataaggaaactggggtgcagaaaaggtgaattaactt
tacaagtagacatgacaagtgaacagcagagctgggatctaaacagcaataactaacattaacagagaa
tttaaaatgttcttagtgctgtgttataagcttgggtggatgtcactcctttaatcctcacaacacctg
tcgggtagtcatattttgcaagtatggaagctgaggcagggcaacatgaagtaacttacataattcatatc
agtaatttgtgcagttgggagatgttcagccttagctccctggctaatgtcctgttctttccagcctgat
tttttttcccacaggaagagcccacatgtagccctgaggtttccttcccaggacagctgcagggtagaga
tcattttaagtgttgtggagtgtgacatccctattgactcttcccagctgatatcagagacttagacc
agcactccttggattagctctgcagagtgtcttgggtgagagaataacctcatagtaccaacatgacatg
tgacttggaaagagactagaggccacacttgataaatcatggggcacagatatgttcccacccaacaaat
gtgataagtgtattgtgcagccagagccagccttcttcaatcaaggtttccaggcagagcaaaatacccta
gagattctctgtgatataaggaaatttggatcaaggaagctaaaagaattacagggatgtttttaatccca
ctatggactcagtccttgaaatagggtctgtccactcctgggtcattgggtggatgttaaacccatattcc
tttcaactgctgcctgctagggaaaactgctcctcattatcatcactattattgtccaccactgtatccc
ctctacttggcaagtgggtgtcaagttctagtgttcaataaatgtgttaataatgaaaaaaaaaaaa

>CDNA23

atttgctttctcttttttcccttcttccggatgagaggctaagccataatagaaagaatggagaattattg
attgaccgtctttattctgtgggctctgattctccaatgggaataaccaagggtgtttccatactgga
acccaaaggtaaaagacactcaaggacagacatttttggcagagcatagatgaaaatggcaagttccctgg
ctttccttctgctcaactttcatgtctcctcctcttgggtccagctgctcactccttgcctcagctcagtt
ttctgtgcttggaccctctgggcccacctggccatgggtgggtgaagacgctgatctgcctgtcacctg
ttcccgaccatgagtgcagagaccatggagctgaagtgggtgaagtccagcctaaggcaggtgggtgaacg
tgtatgcagatggaaagggaagtggaaagacaggcagagtgcaccgtatcgaggagaaacttcgattctgcg
ggatggcatcactgcagggaaggctgctctccgaatacacaacgtcacagcctctgacagtggaaagtac
ttgtgttattttcaagatgggtgacttctatgaaaaagccctgggtggagctgaaggttgcagcactgggtt
ctaactctcacgtcgaagtgaagggttatgaggatggagggtatccatctggagtgcaggtccaccggctg
gtacccccaaccccaataacagtggagcaacgccaaggagagaaacatcccagctgtggaagcacctgtg
gttgcagatggagtgggcctatatgaagtagcagcatctgtgatcatgagaggcggctccggggagggtg
tatcctgcatcatcagaaattccctcctcggcctggaaaagacagccagcatttccatcgcagacccctt
cttcaggagcgcccagccctggatcgcagccctggcagggaccctgcctatcttgcctgctgcttctcgc
ggagccagttacttcttgtggagacaacagaaggaaataactgctctgtccagtgagatagaaagtgagc
aagagatgaaagaaatgggatatgctgcaacagagcgggaaataagcctaagagagagcctccaggagga
actcaagaggaaaaaaatccagtacttgactcgtggagaggagtcttcgtccgataccaataagtgcacct
gatgctctaattggaaaaatggccctcttcaagcctgggtgaggaaatgcttcagatgaggctccacctgt
taaaataaattggatgtatgaaaaatagactgcagaaaagggaactcatttagctcacgagtggctcag
tgaagattgaaaattaacctctgagggcgacagcagctcatgctgtaatcctagcactttggaagg
ctgaggaggcggtatcacaaggtcaggagatcaagaccatcctggctaacacgggtgaaaccccgctctta
ctaaaaatacaaaaaataaaaaattagccggcatgggtgacgggcacctgtagtccagctactcgggag
gctgaggcaggagaatggcatgaacccggaaggcagagcttgacgtgagccgagatcacgccactgcact
ccagcctgggagacagagcgagactctgtctcaagaaaaaaaaaaaaaaaaaaaaa

Figure 7 (2 of 6)

12/162

>CDNA44

ctgaagcttgcattgcctgcaggtcgacccacgcgtccgcggacgcgtgggacgcgtgggtttttcct
ttcttccagaaggagatttaaccatagtagaaagaatggagaactattaactgccttccttctgtgggct
gtgattttcagaggggaatgctaagaggtgattttcaatgttgggactcaaagggtgaagacactgaagga
cagaatttttggcagaggaaagatcttcttcgggtcaccatacttgagtttagctctagggaggtgaggtt
tccatttgggaattctatagcttcttccaggtcatagtgtctgccccccaccttccagtatctcctgatat
gcagcatgaatgaaaatggcaagtttcttggccttcttctgtctcaactttcgtgtctgcctccttttgc
ttcagctgctcatgcctcactcagctcagttttctgtgtcttgaccctctgggcccacctcctggccatggt
gggtgaagacgctgatctgcctgtcacctgttcccgaccatgagtgagagaccatggagctgaagtgg
gtgagttccagcctaaggcaggtggtgaacgtgtatgcagatggaaaggaagtgyaagacaggcagagt
caccgtatcgagggagaacttcgattctgcgggatggcatcactgcagggaaaggctgctctccgaataca
caacgtcacagcctctgacagtggaagtaacttggttattttccaagatgggtgacttctatgaaaaagcc
ctggtggagctgaaggttgacgactgggttctgatcttcacgttgatgtgaaggttacaaggatggag
ggatccatctggagtgaggtccactgggtgttacccttacccttacccttacccttacccttacccttacc
agagaacatcccgactgtggaagcacctgtggttgacagcggagtgggctgtatgcagtagcagcatct
gtgatcatgagaggcagctctggggagggtgtatcctgtaccatcagaagtccctcctcggcctggaaa
agacagccagcatttccatcgacagacccttcttcaggagcgccagaggtggatcgccgacctggcacg
gacctgacctgtcttgcgtgcttcttgggggagcgggttacttctgtggcaacagcaggaggaaaaa
aagactcagttcagaaagaaaaagagagagcaagagttgagagaaatggcatggagcacaatgaagcaag
aacaagcacaagagtgaagctcctggaggaactcagatggagaagtatccagtatgcattctcggggaga
gagacattcagcctataatgaatggaaaaaggccctcttcaagcctgcggatgtgattctggatccaaaa
acagcaaaccccatcctccttgtttctgaggaccagaggagtgtgcagcgtgccaaggagccccaggatc
tgccagacaacctgagagatttaattggcattattgtgttctcggctgtgagagcttcatatcaggag
acattactgggaggtggaggtaggggacaggaaagagtggcatataggggtgtgcagtaagaatgtgcag
agaaaaggctgggtcaaaatgacacctgagaatggattctggactatggggctgactgatgggaataagt
atcggactctaactgagcccagaaccaacctgaaacttccctaagccccctaagaaagtgggggtcttctc
ggactatgagactggagatatctcattctacaatgctgtggatggatcgcatattcatacttctcctggac
gtctccttctctgaggtctatatcctgttttcagaattttgaccttgagcccacggccctgagtattt
gtccagcgtgaaaagaagaagagaggttccctcaattctgaccgagtgtgatcattccctagagacacca
gtaacccccgggcttagctaacgaaagtggggagcctcaggctgaagtaacttttctctgcttctcctgc
ccagctcagagctcagggtccctccctccacagcaaccaataaagctacaagcacgcactg
aagcactttactgatactcattcaattattcatatgacagttgtttgagtttggtaccatcttattttcc
ccttatacagataaggaaaactggggtgcagaaaagtgaattgactacaaagttagacatgactagttaaca
acacagctgggatctaaacagcaataactaacattaatggagaacttaaaatgctctgagtgctgtgta
tgagctttggtggatgtcactcctttaatcctcgcaacacctgtcgggtagtctcatttagcaagtatg
gaagttgaggcagggcaacattaagcaacttacataactcatgcagtaatttctgcagttgggagatgtt
cagcttcagtcctccggccctatggcgttcttttccacctgttcttcccccataggaagaacctac
gtagccctgaggttcttttccaggatggctccaggataaggatcactgtaggtggttgtggagttgaca
cccctgttgactccttcccagctgattgtcagagccttagaccagcacgccttggttagctttgcaga
gtgtccttggttgagagaataacctcacctgacacatgacacgtgatttggaagagactagaggccac
acttgataaatcatggggaacagatgtgttccaccaacaaatgtgataagtgatcatgcagccagagcc
agccttcttcaatcaaggtttccaggcagagcaaataccttagagattttctgtgatataggaaatttg
gatgaaggagctagaagaatacagggttttttttttttttaagatggagtttactctgttgctag
gctggagtgcagtggtgcgatctcagctccctgcaacctccacctcctgggttcaaacaattctcctgcc
tcagcctcccagctactgggaatataggtgcagccaccacacccaacaaattttgtacttttagtaca
gatgaggggtcactatgttggccaggatggtctcagatctcttgacctcatgatccaccacacctcgtctc
ccaaagtctgggtattacaggcttgagccaccgggtgaccggcttacagggatatttttaattccggttat
ggactctgtctccaggagaggggtctatccacctgctcattgggtggatgttaaaccaatattcctttc
aactgctgctgctaggggaaaaactactcctcattatcatcattattattgctctcactgtatccctc
tacctggcatgtgcttgtcaagttctagttgttcaataaatttggttaataatgctgaaaaaaaaaaaaa
aaaaaaaaaaaaaaaaaaaaaaaaa

>CDNA32

agagaacaggtcccagataccgagtcgcgaacccccaaacatcgcgattaataggaggcctctggtctctg
cctgccctgggtgctcatggaaccagctgctgctctgcacttctccctgccagcctccctcctcctc
ctgctcctcctccttctcagcctgtgtgcactggtctcagcccagtttactgtcgtggggccagcta
ccatcctggccatggtgggagaaaactacattacgctgccatctgtcaccggagaaaaatgctgagga
catggaggtgcggtggttccgggtctcagttctccccgcagtggttgtgtataagggtgggagagagaga

13/162

acagaggagcagatggaggagtaccggggaagaatcacctttgtgagcaaagacatcaacaggggcagcg
tggccctgggtacataacgtcacagcccaggagaaatgggatctaccgctgttacttccaagaaggcag
gtcctacgatgaggccatcctacgcctcgtggtggcaggccttgggtcctaagcccctcattgaaatcaag
gccaagaggatgggagcatctggctggagtgcatacttgagggtggtaccagagcccctcacagtgt
ggagggaacccctacggtgaggttgtgcccgcctgaaggaggtttccatcgctgatgctgacggcctctt
catggtcaccacagctgtgatcatcagagacaagtatgtgaggaatgtgtcctgctctgtcaacaacacc
ctgctcggccaggagaaggaaactgtcattttttattccagaatcctttatgccagcgcctctccctgga
tgggtggccctagctgtcatcctgaccgcctctccctggatgggtgtccatgactgtcatcctggctgtttt
catcatcttcatggctgtcagcatctgttgcataagaaacttcaaagggaagaaatctgtcaggg
gaaaagaaagtgaacaagaggaaaaagaaattgcacagcaacttcaagaagaattgcgatggagaagaa
cattcttacatgctgctgatgtggtcctggatccagacaccgctcatcccagctcttccctgtcagagga
ccggagaagtgtgaggcggggcccctacaggcagagagtgccctgacaacccagagagattcgacagtcag
ccttgtgtcctgggatgggagagcttcgcctcagggaaacattactgggaggtggaggtggaaaacgtga
tgggtgtggactgtgggggtctgcagacacagtgttgagaggaaaggggaggtcctgctgattcctcagaa
tggcttctggaccctggagatgtttggaaccaataaccgggcccctgtcctccccctgagaggattctccct
ttgaaggagtccctttgcccgggtgggcgtctccttgactatgaagctggagatgtctccttctacaaca
tgagggacagatcacacatctacacatgtccccgttcagcctttactgtgacctgtgagggccttcttcag
gttagggtctgatgacagccccatcttcatctgcccgtcactcacaggagccagtggggtcatgggtgcct
gaagagggcctgaaacttcacagagtggggaccaccagagcctatagaatcaattccttgactcacag
ccatgcagataagccctggccatctcagcagccaccgcacaacccccctaatgaaagacacgcccctctc
ccctctgggtcacgtaagagaacatcttccagctgcctttttcacacccactccagccctctgcccagtt
ttctcctcctcactagtctgtggctttagtagttcctttgtctgtaattatgggatgggatccaggcata
gggaactagtgtttcatagctcccagtcaaaaagaaagtgagagaagctgttgggcagtgaacctactg
tttaaaatcaggataaccacattaagcccaatatgccagttggcaccagatgctgtggacttggaatgag
gccaacaggggttcaccaggatgagagaggagagaggaaatccacaggaccaccagaaggagagggaacca
gatatgcagatcagagatagaggaaagtggaaaccagagagctgggagggaccaaggttgtaaggatggcta
agtcccaccataagagctaaagggctcctgggagatgatggctcatttccaccaaccccaggatttccac
agcacaccccacaggcctggacctgggatgaagatgaatgaagaacatggactcatgtggatgtgggtt
ggctcagatgtccctgcaataaacaaggggtcagctacttagtccctgagtgtgggtgaggtttgaggtcc
tggctgagcagggcagctactggaccaggtctacgtcagcattcaggttcaatggggacaccagtggttcc
aaacttctgatctaattatgttttttagacacttagaagttattgaggactttaaagagcttttggttat
ttgggttaatatattatgacatttgacattgaaacaaaaatttaaaatgttatcttttaatttatgttaaa
atagcattaataaaatcagttataggttaattgtagataggtatgttttgtaaaaaagcaattattgtgtcc
aaataaaaaaaaacaaaaagtgtgacactgggttaactttttccagatctcatgtctggcttaataagagat
atttgtattatcatatctgcctttgtattaaacctatttggtatatcataggtcatgttagctcaaaaaa
ctttactgcacactactgagagaatgagatgaaaaacgattaatgtttcattattattattgtgaaaaata
ttattaacactggggactccttaagagtacatcagagttctctctaggaatccaaaaccacattttgaa
actagaatagtggatcctggaagttaatccatgtgctgggttaatttttagatgtcaacctgggtgtttccag
aagagattggcaagtgagtcagtgaggaaattctctccttctgttggctgggtgccaataacaacaaaag
gcagaggaaaggcaaatcttctctcctctggagctgagacactcttcttcttctgccccttgacatcag
aactcctggctctccggcctttgaacttcaggacttgtaccaggaggccctgggttctcaggcctttggc
tttgactgagagttacacaatcagcttccctgggttctgaggctttcagacttaaaactgagccatgctac
cagcatcccagggtctccagcctacagatgagctgttgtgcgatttcttagcctccataatcacatgagc
caatctccttaataaatgcctgctcatagatctgtatctacatctatatctgtatgtgcatttatatcta
tgcttatatctatatctatatcatattgattttgtctctctggagaaccctgactaataaaatgaggcat
ctaaaaaaaaaaaaaaaa

CDNA27>

gaccacgcgtccgaaaagctatggcctcaaccaccagcaccaagaagatgatggaggaagccacctgct
ccatctgcctgagcctgatgacgaaccagtaagcatcaactgtggacacagctactgccacttgtgtat
aacagacttcttttaaaacccaagccaaaagcaactgaggcaggagacattctgctgtccccagtgctcg
gctccatttcatatggatagcctccgacccaacaagcagctgggaagcctcattgaagccctcaaagaga
cggatcaagaaatgtcatgtgaggaacacggagagcagttccacctgttctggaagacgaggggcagct
catctgctggcgctgtgagcgggcaccacagcacaagggcacaccacagctcttgttgaagacgtatgc
cagggtacaaaggaaaagctccagaaagctgtgacaaaactgaagcaacttgaagacagatgtacggagc
agaagctgtccacagcaatgcgaataactaaatggaaagagaaggtacagattcagagacaaaaaatccg
gtctgactttaagaatctccagtggttccctacatgaggaagagaaggtcttatctctggaggctggagaaa
gaagaacaacagactctgagtagactgagggtggtctggggctgaagagcaatgaactca

14/162

agagccacatcctggaactggaggaaaaatgtcagggtcagcccagaaattgctgcagaatgtgaatga
cactttgagcaggagttgggctgtgaagctggaacatcagaggctgtctccttggaacttcatactatg
tgcaatgtttccaagctttacttcgatgtgaagaaaatgttaaggagtcacaaagttagtgactctgg
atccagatacagctcatcacgaactaattctctctgaggatcggagacaagtgactcgtggatacaccga
ggagaatcaggacacatcttcaggagatttactgccttcccctgtgtcttgggttgtaaggcttcacc
tcaggaagacgttactttgaagtggatgttggcgaaggaaccggatgggatttaggagtttgtatggaaa
atgtgcagaggggactggcatgaagcaagagcctcagtcgtgattctggaccctcaggctgtgcaaaaa
gaaaggctatgtagcacttacttctccccaacttcccttcacatgcatgagcagcccctgcttggtgga
attttctgactatgaggccggagttgtatccttttataacgggaatactggctgccacatctttactt
tcccgaaggcttccctctctgatactctccggccctatttccagggttatcaatattctcctttgtttct
gcctccccagggtgactaaggaaaagagcagaagctccttggttaaccagcacagagaaaaataataaa
atcccataaggggcagacgttttggtctgttttcttcgctgtcatttcccttagtagttagactagtgtgag
atttttagtgatatataattgatttatgttgaatatatggacttagcaactaaaaataccacagatgggt
aacctggactggggcaaagcaagataatagtgtatgacgtatgttgctgtctccatccgtctttaatggg
tcagggtcttgatttccaagggtcttcagggtgatgagtaggggtacccacaagtcagaaggctgtcggttc
tcttagtttggttgctgccatttgaactcatgtagggaatgaaagaaagctgcaattatccgccaactgc
atttaaaacaaaaacaaaacagaaaaatcaaaataacattgactcttccaaccactgacatgttgttta
aatctaagcggcagtcctggaggctaccagacttactgagttctacctgagaaacagccaagcaagtg
gagagaagggttaagactggcttacaatgagatgcttcaaatgaaaagggaattatgagtaaaattgaac
tttgatgggggattcagttctggaaaagaatttggtattttccagtcctgctaggaccaattaccttgaaa
tattttaaaatctcagtaaatagttattgctgaaatggctgttggcagttcttattatgattcagagaag
agcaaatagaccttaacttcattttgaaaaagaccaaattaccatacccgagttagtaatgacaggacta
caactaaaacataaacaacattaatgatgaccataaaaaagtcacaaaattgctaaatgttataatttaga
gttgacataaaaaattgatggccaggcatggtggctcacgcctgtaatcccagaactatgtgaggctgagg
cagggtgatcacttgaggtcaggagttcaacaccagcctggccaacatggtgaaacctgtctctactaa
aaatacaaaaaattagccgggcatggtggtaggggctgtaaccagctactcgtgaggccaaggcaggag
aattgcttgagcctgcagcagctgcagtaagccaagatcatgctgtgcctcaaggaaaaaaaaaattaat
gtttactgatatttggtgaagtcctacaacatcacctctgagaataggagaaaatgaagcaacagttgtgt
ctagatgtcagaggcatggctgggcctccatctctgcctaaaggagatataaaagagttcaaactattgc
ccatgttccccagggtcagaagttctaattatgatgatagaggctgggttgtaagtagtaagtgagggt
agcagaatatgccatctttggcataagaagtattttgagttgaagacaattgagaaaaaaaaaaaaaaaa
aa

>CDNA22B

ggacagaaaactccctccttttccaagtttagccttatagtctagggttaaaatactgggttaaatgggtga
aggtaagtgttttcttcttttgggtagaaggattattactaacttaccaaagggtccattaaggggagg
gaacagttttaggagaagtcagagaaaagacattaacagcaacataaggatctccatctggtaattatgc
ctaattccaaaatgaagagactctctgaaaaagataactgattcaatgaagaccctaggggcaaggcttga
gaagccactggtaccaatggacactgtggacaatggtcatttctccaaggacgctataaaaagactgtcgt
agtaaaagagattcaggggcacagggaactccaccacaaagcgtggtaccatttcccacagaagctaaat
ggacgggaagcctgccaccaggaaagggtccagatttctgttcattacgctatgggctggctcttatcatg
cacttctcaaacttcacatgataacgcagcgtgtgagtcgtgagcattgcgatcatcgccatggtgaaca
ccactcagcagcaaggcttatctaatgcctccactgaggggctgttgagatgccttcaataactccag
cataatccatcaaggaatttgatacaaaaggcctctgtgtatcaatggagcccagaaactcagggtatcatc
tttagctccatcaactatgggataatactgactctgatcccaagtggatatttagcagggtatattggag
caaaaaaatgcttggtgctggtttgctgatctcttcccttctcaccctctttacaccactggctgctga
cttcggagtgattttggtcatcatggttcggacagtcacagggtatggcccagggaatggcatggacaggt
cagtttactattttgggcaaatgggctcctccacttgaacgaagcaagctcaccaccattgcaggatcag
ggtcagcatttggtatccttcatcctctgtgtgtgggggactaatctcacaggccttgagctggccttt
tatcttctacatcttttggtagcactggctgtgtctgtctctctatggttcacagtgatttatgatgac
cccatgcatcaccctgcataggtgttagggaaaaggagcacatcctgtcctcactggctcaacagccca
gttctcctggacgagctgtccccataaaggcgatggtcacatgcctaccacttggggccatttctctggg
ttttttcagccatttctggttatgcaccatcatcctaacatacctaccaacgtatatcagctactctgctc
catgttaacatcagagatagtgaggttctgtcctccctgccttttattgctgctgcaagctgtacaattt
taggaggtcagctggcagatttccctttgtccaggaaatcttctcagattgatcactgtgcgaaagctctt
tcatctcttgatatgcaagtttccctcatgagggaatctcaaggggatttggtgctcatgcagggaatcatct
cttccactgccactggattcctcatcagtcaggattttgagtcgtggttgagggaatgtcttttctctgtc
tgctgcagtcacatgtttggcctgggtcttttacctcacgtttggacaagcagaacttcaagactggggc

Figure 7 (5 of 6)

15/162

aaagagaggacccttaccgcctctgaggacataaaagttacaaacttaaagtgtggtactgagcatgaact
ttttaaacattttttacttctctccatattcctgaccatagactcagcagttcttaactctggctgtgtg
ttagtcttccctggggagcctttataagacactgatacttgggaccactccagagattctgaatgaatt
ggtctgggtggaaccagataactactaatttttagatactccttagaggtttctagcatgcccgggg
ttgacaacagctggacaaacttgaaggtcaattcatgtggcctttgaattttcctcattggaagtact
aaataaataaaaaattcatgtgaaaatgatcactgataaatatcttcatgggtggggcaggttattggatgc
agagaagatctgctcgaattgttagccatatgttacagatctcagcaccgatcagaactgtaaagctata
atccccagaattaaagtttttattttttttatacattgtaaaacatagacgtttattttatgtgattaaa
ttctatttaaaatttacatgctaaaaataaaaaaaaaaaaaaaaa

>CDNA22E

acgcgtccgcccacgcgtccgcccacgcgtccggctcggggccagagcgcaggtgtacctggcggccgtgc
tggagcacctgaccgcccagagatcctggagctggctggcaaccggccgcgacaagaagaccgcatcat
cctgcccacctgtagctggccattcgcaacggcgaggagcttaacaagctgctgggcgaagtcaccatc
gcgcagggcggtgtcctgcccacattcagggcggtgcttctgccccagaagaccaagagccaccacaagg
ccaagggtagaaaaccattcactaggagaggagaaaacacaatggccaccaagacagagttgagtcccacag
caagggagagcaagaacgcacaagatatgcaagtggatgagacactgatccccaggaaaggtccaagttt
atgttctgctcgctatggaatagccctcgctcttacatttctgcaatttcacaacgatagcacaaaatgtc
atcatgaacatcaccatggtagccatgggtcaacagcacaaagccctcaatcccagctcaatgattcctctg
aggtgctgcctgttgactcatttgggtggcctaagtaaagcccaagagcttctcctgcaaagtcctcaat
acttgggggtcagtttgcaatttgggaaaagtggggccctccacaagaacgaagcagactctgcagcatt
gctttatcaggaatgttactgggatgctttactgccatcctcataggtggcttcatttagtgaaacccttg
ggtggccctttgtcttctatatctttggaggtgttggctgtgtctgctgccttctctggtttgttgat
ttatgatgacccttttcttatccatggataagcacctcagaaaaagaatacatcatatcctccttgaaa
caacaggtcgggtcttctaagcagcctcttcccatcaaagctatgctcagatctctaccatttgggtcca
tatgttttaggctgtttcagccatcaatgggttaggttagcacaaatgggtgtatacataccaacttacatcag
ctctgtgtaccatgttaacatcagagacaatggacttctatctgcccttccttttattgttgctgggtc
ataggcatgggtgggaggctatctggcagatttccttctaaccaaaaagtttagactcatcactgtgagga
aaattgccacaatttttaggaagtctcccctcttcagcactcattgtgtctctgccttacctcaattccgg
ctatatcacagcaactgccttgctgacgctctcttgcgattaagcacattgtgtcagtcagggatttat
atcaatgtcttagatatgtctccaaggtattccagttttctcatgggagcatcaagaggattttcgagca
tagcacctgtcattgtaccactgtcagcggatttcttcttagtcaggaccctgagtttgggtggaggaa
tgtcttcttcttgctgtttgcccgttaacctgttaggactactcttctacctcataatttgagaagcagat
gtccaagaatgggctaagagagagaaaaactcactcgtttatgaagttaaccaccttggtggaaaagtca
ttaggcaccgtattgcataaaaatagaaggcttccgtgatgaaaaataccagtgaaaagattttttttcct
gtggctcttttcaattatgagatcagttcattattttattcagacttttttttgagagaaatgtaagatg
ataaaaaattcaaataaaatgataactaagaaaaaaaaaaaaaaaa

16/162

```

1   CACACACACA CACACACACA CACACACACA CACACAAATG AGGTATATAA AGGGTCTCCT
61  AAAATGTCAT CTGATATTTG TTATTTTCATA TTCTCAGATT TTTAATCCAT TTAGGTAGGT
121 CTATTTTAGA TAGCCTTGTC TGAAACAGAG CTGGGACCTG ATGAGTGAAA ATGAGCTCAC
181 CAGAAGAAAA ATCAAACAGG CATTTTCAGAG ATTGAGGCCA AGAAGTTAAA TGTCTTAAAT
241 GGGCAGAGCT TAGCTGCTTG ATGTGAAAAAG AGACCAGCGT GGCTGGAACA GCAAAGGAGA
301 ACAGCAGAAG AGGTGAACAG AGGCCAGAGA TGGTCACTGA GTGGGCCCTT AAGTCATGGT
361 AAGGAGTATG GAGAATGAAT TATTGCATGT ATTGAATATG TAGGTGACGT GACTCACAGA
421 TACTTTGGAT TTGTAGAGAT GAAGGAAATG TAGCAAGTGA CACTCTTAGA ATGTTGATTT
481 GAGTAAATGG TAGTGTCAGT TATTGAACTG GGGAGAACTG GAAGGGATAA CAGGCTTAAG
541 GAGCACGTTT ATTCCTGTGT CTTGGAAGTG TTTAGGGTGA AAGACCTATT AGAGTTCTAA
601 ATGGAGATGT CAAGTGAAAA TGTGGCTACA CACATTTGCA TTTAGAAAAA AAGGTCAGGC
661 TGGAGATGTA AAATTGGAAG TTTACTGCAT ATAGATAGTC TTTGGAACCG TAGTATTGAT
721 GAAGCCATTA ATGAGACAGA ACAAAGACTA GGGACCAGAG CCAAGCTCCA AGTTTCTAAA
781 ATTTAGAGGA TAGTATAGTC TGGTCATTTT GAGGTGAATA CTTAATAACA GAACAATTTG
841 TTGAAGTGTA AATTTAGAGC CCTACATTTT TAGCTCTGAC TATTAACGAA TACAGGAAAG
901 AATGGATATG GTTATCTGCC TGGTGTCTGT GAAATAATTT AAGCCAGGAA GAGATCCTCA
961 CCAGAAACTG ACTATGCTGG CAACTTGGAT CTTAGATTTT CAGCCTGCAG AATTGTTAGA
1021 AAATAAATGT CTATCGTTTA AGCCACCAGT CTGTAGTATT TTGTTATGGC AGTCCAAGCT
1081 GACTAAGTTT TGGTACCCAG GCGTGGGATG CTGCAACAAC AAATACCTAA ACATGGGGAA
1141 GTGGCTTTGG AAATTGGTGA TGGGTAAAGG CTGGAAGAGT TTGAGGTTCA TACTAGAAAA
1201 AGCCAATTGT GAAGGGACTA TTGAAAGAAA TATGGACATT AAAGGCAATT CTGGCAAAGG
1261 CTCAGAAAGG AAGAGAGCTG GACAGAAAAGC TTCCATTTTC ATAGAAACTT AGATTTATAA
1321 CGATCATGGA TAGAATATTA AATATGCTGG TTAAAAATATG GACTTTAGGC CAGGCGTGGT
1381 GGCTCACGCC TGTAATCTCA GCACTTTGGG AGGCTGAGGG CACAGATCAC GAGGTCGGGA
1441 GTTTGAGACC AGCCTGGCCA ATATGGCGAA ACCCTGTCTC TACTAAAAAT ACAAAAAATTA
1501 GCTGGGCATG GTGATGTGCT TCTGTGGTCC CAGCTACTCG GGAGGCTGAG GCTGAAGAAT
1561 CGCTTAAACC CGGGGGGTGG AGGTTGCAGT GACCCAAGAT CACACCACTG CACTCCAGCC
1621 TGGGATACAG AGCAGGACTC CACTCCCCCC GCCACACACA CACAAAAAAT ATATATATAT
1681 GGACATTAAA GTCAACTCTT GTGAGGTCTC AGATGAAAAT GAGGGACAGG TTATTGGAAA
1741 CTGTAGAAAT CACTGTTCTT GTTACAATGT GTCAAGAACT TGGCTGAATT ACGCTGTAGT
1801 GTTTACTGGA AAGAACTTAT AAGCAGTAAA ACTGGATATT TACCAGAAGA GATGTCTAAG
1861 CAAAGTATTG AAGGTGTGAT TTAGGTCCTC CTTACTGCTT AAAGTGAAAT GTGAGAGGAA
1921 AGAGCCGAAA TAAAGAAGGA ATTTTAAAGC AAAACACAAT CAGAACTTGG AGATTGTGGA
1981 TAGATTTCTC AATCTATATT GTAAAAATTG AGAAAGTTTT TCTTGAAGAG GTATGGTTGA
2041 ACAATGTTTT CTTTTTCTTT TTTTTTCTTG GTTTTATTTT TATTTTATATG TTTTTTGAGA
2101 CAGGGTCTGG CTATGTCATC CAGGCTGGAG TGCAGTGGCA CAATCTCAGT TCAGTGCAAC
2161 CTTTGCCTTC AGGCTCAAGC AATCCTCCCA CCTCAGCCTC CTAAGTAGCT GGGACTACAT
2221 GTATGCACCA CCACACCCTG GCTAATTTTTT TGTTGTTGTT TATAGAGATG GGGTTTGTAC
2281 ATGTTGCCTA GGCTGGTCTC TAACTCCTGA GCTCAAGTGA TCTGCCCTCC TCAGTCTCCC
2341 AAAGTGTTGG GATTACAGGC GTGAAACACT GAGCCTAGCC TGAACAACCA TTTGATAAAG
2401 AGATAATGGG TGTGACCCAA GGATTTAATC AGCCATCTCA GCAGAAGCCA GGAAGAGAGA
2461 TGGGATTATT CCAGCAGAGA CACTGCCAAT TTAAACTAAC GTAGGCAGAG AAAACAGAAA
2521 GGAACAAAGG AAGGTTGTCT ACTTTTTTGAA TTCTATAGAA CAGGATCATA GAGCTACCTG
2581 GCTGTCAATG TGTACTATTC TTTAAGAAAA GGAAAGACTG ACCCACCAAA GGCAACTTAC
2641 AAGATCACTA GGGCTGACTC TTTTGTTTTT TCTTGAGGCA GTCTCACTGT CACCCAGGCT
2701 GTAGGGCAAT GGTGTGATCT CAGCTCACTG CAATCTCCAC CTCCCAGGTT CAAGGGATTC
2761 TCTTGCCTTA GACTCCCAAG TAGCTGGGAT TACAGGCTCT AAATCTGTAC CCTCCCGAGT
2821 AGCGCTCCTG CCACCACTTG CCCAGCTAAT TTTTGTATTT TTAGTAGAGA TGGGGTTTCA
2881 CTATGTTGGC CAGGCTAGTT TGGAACCTCT GACCTCCAGT GATCCATTCT CATTGGCCTC
2941 CCAAAGTGCT GGGATTACAG GCAGGAGCCG CCAGGGCTGC CACTTTGATG TCAGACTCAG
3001 AGAGTACAGA TGGGATAGGG TGGGGGTGGG AACATGTAGT CAAGGCTGAC TCTACCTGTT
3061 TCAAAGATGC CCTGCAGAAC TGTGTGGGAG TCTCTCACAG ATGGCTGCCT GGGTGGGACC
3121 CCACCAAACCT GAAAGACCGA GACTTCAGGC AGGGCAGATG GAGTAGGCCA ACTACAGAGC
3181 CAGAGGTGAC ACTGAGACAC CACTGGGCCT GGAAATCAGG GCATCAAGCC AAAGAGGGTT

```

Figure 8 (Page 1 of 73)

17/162

```

3241   TTTCTTAAGA CCTAACAGAA TTTGCCTTGC CAGGTTTTGG ACTTGATTAG GACACATTAC
3301   ACCTTCCTTC TTTCCTATTT CTCCATTTTC TAATGGGAAT GTCTATTATG CCTGTTTCAC
3361   CATTGTACCT TAGAAGCATG TAACATTTCT GGT TTCACAC GTTCAAAGCT GGAAAGGAAT
3421   TTTGTCTCTG GATGAATCAC ACATTGAGCC TCACCCGTAA CCTGATTTAG ATGATTTTTT
3481   AGATGACACT TTGAACTTTA GAATTGATGC TAGAATGAGT TAAGACTTTC AGGGGGCTGT
3541   TGGGATGGAA TAATTTTTTT TTTTTTTTTG AGACGGAGTC TAGCTCTGTC GCCCAGGCTG
3601   GAGTGCAGTG GCACCATCTT GGCTCACTGC AAGCTCTGCC TCCCGGGTTT ATGCCATTCT
3661   CATGTCTCAG CCTCCAGAGT AGCTGGGACT ACAGGCGCCC GCCACCACGC CTGGCTAATT
3721   TTTTTTTTAT TTTAGTAGAG ATGGGGTTTC ACCGTGTTAG CCAGAATGGT CTCGATCTCT
3781   TGACCTTCTG ATCCGCCTGC CTTGGCTTCC CAAAGTGCTG GGATTACACG TGTGAGCCAC
3841   CATGCCCGGC TGGGATGGAA TAAATTTATC TTGTATGGGA GAAGGACATA CATTTTGGCA
3901   GGTCAAGGAC AGAATGTTAT GGACTAAACT GTGTCCCCCA AAATTCATTT ATTTAAACCC
3961   TAAACCCAG TGTGACTGCA TTTGGACATA GAGCCTTTAG GGGGTACATA AAACATAAGA
4021   TCACAGGATA GGGCCCTAAT CCCATTGGGG CTGGTGTCTT TACAGAAGAT GAGACACTTA
4081   GAGCTCTCTC TCCACGCAGG CACCAAGGAA ACACCATACA AACACACAGT GAGATGGCAG
4141   CCATCTGTTA GCCAGGAACA GATTCTCACC ATAAACTATG TTGGCACCTT GATCTTAAAC
4201   TTCCAGGCTC CAAAACGTG AGAAAATGAA TTTCTGTTCC AAGCCTCTTA GATATGGAAA
4261   AAAAGATTCT GTTGTTTAAG CCATCCAGTC TCTGGTATTT TGTATGGCA GCCTGAGTAG
4321   GCTAAGACAA TGAAGGATGT GGTAAACTT TACGTCCCAA CCACATACCA AAGAGGCTGG
4381   AATTTAGCAT GCTTCTTCT TCAACTGTA GGCAATGTGC ACAAGTTCTA AATCCTAAGA
4441   CATGTTGGCT CCTTTACTCT GCCCAAACA CAACTCAAAC AAACAACGT AATATAATAA
4501   CATCCAATGA AGTTCTGACA TTTCTTCAAC ATGAGTACAG TAATTCATG CCAGAGAATT
4561   CATTTTATTT TGAAATCTAC ATGCCATATT CCAATTTCTG TTGAAGATGC AATGGTTATA
4621   TTTATTCTTT TTAATATAGA TTTATCAGAC TGGGCGCGGT GGCTCATACC TGTAATCTTA
4681   GCATTTGAGA GGCTGAGGTG GGCATATCAC CTGAGGTCAG GAGTTTGAGA CCAGGCTGGC
4741   CAACATGGTG AAACCCCTGTC TCTACTATAA ATATAAAAAAT TAGCTGGGTG TGGTGGTGCA
4801   TGCCTGTAGT CCCAGTTACT AGGGAGGCTG AGGTAGAATT GCTTGAACCT GGGAGCAGGA
4861   GGTGCAATG AGTGGAAATC GCACCAGTAC ACTCCAGCCT GGATGACAGA GCAAAATAAT
4921   AAATAAATAC ATAAATAGA TTTATCAGTT TATCAATAAT ATAGTTTTCT TTTCTAGGTG
4981   TAAATATAGG TAATGACTGT CCTTTAGTAC ATTTTCTCAT GATGCTCCTC TTACTTGGTT
5041   TGGTACAATA TTAAGTATTG AAATAAAATA GAGAATCCTG TCGCTACACA TGAGCACTTA
5101   TTCCATTTGC TCATCTCAA TATGCACGGG AAATTCTCAA ATTGCTAATA ATCTTGTAAC
5161   ACACATGCAT TATATTCAAC AGGAATATAT AAATTTATAA TTATAATTTA GGATCAACAG
5221   ATGACAAACC TTTAGAAGGT TTGTATTTAA CCTTAAATA TAATTTTTTA AAAATTGGTT
5281   ATAAAATTT TAATACTTT TTTTTGTGA CCTCAAGGGG AAAATATAAT TCTTATAAAA
5341   GTTCAAATGA TTTACAGAAT AAAAAAGTG AATAGAGATG ATGAATGAAT TAAAGGAAAG
5401   GATATTGCTA CATAGATTG GAAATTTAAA AAGGGAAATT ACGATTGTTG ATTTTGTGTT
5461   AAACATGATCT GCTTGTGTTA AGATACCTTA TGTACCAAAA AATGATTTTA TCTCAGCCTC
5521   ATATCTCAGT AAATTCCTGA GACAACTTT AGTCCCTGGT GCCCAGGTGC CTTTGGTAAT
5581   TGGGAGACCT CTAGGTTTAG CATCCTCATC CACTCGCCCC AATTTAAATA GTCTCCCCA
5641   GGGCCATTCG GCAAGGGAG ATGAAAACCT GCTCAAGAGT TGGAATCCAA CTGAAGCTAC
5701   CGAAATTCAT TGCTCAATAG ATAATTTTCC CTGGAAGTAA CTAGGGCTTT TGAATATAAT
5761   AGTGGGCATT TCAAAGTAGA AGGTAAAGTA TTTTGGAGAT GAGGAGACAG GACAGAGCTA
5821   CGAGGAATGT CCTTTGCTTA GGGACTAGGC TCTTAGCAGT ACCTCTTAGG TAAGAACTGG
5881   TTAACCTGGCA CCTTCTGTGT TTCTCTGAAG CTCCCTTTCG TTAGGGACTA GGCTCTTAGC
5941   AGTACCTCTT AGGTAAGAAC TGGTTAACTG ACACCTTCTA TGTGTCTGAA GCTCCAGAA
6001   CAACTGCCA GTGAAATTTG GATTTTTTGA ATATAGTTTC TTTTTTCTTG TTACTTTTTG
6061   TTTTGTGTT TTTTTTTGAG AGTCTCACTC TCACTGCAAC CTCCCCCTCC TATATTCAAG
6121   TGATTCTCTT GCCTCAGCCT CCCGAGTAGC TGGGACTACA GCGGTGCACT AGCATGCCCA
6181   GCTAATTTTT GTATTTTTTA GTAGAGATGG GGTGGGTTTT TTTTGGAGAC GGAGTTTCAC
6241   TTTGTCGCCC AGGCTGGAGT GCAGTGGCAC GATCTTGGCT CACTACAACC TCCACCTCCC
6301   GGGGTTCAAG TGATTCTTCT GCCTCAGTCT CCTGAGTAGC TGGGACTACA GGCGCTACA
6361   GGTGAACACC GCCACACCTG ACTAATTTGT GTAGTTTTAT TAGAGATGGG GTTTCGCCAT
6421   GTTGGCCAGG CTGGTCTCAA ACTCTGACC TCAGGTGATC TACCCACCTC AGCCTCCCCA

```

Figure 8 (Page 2 of 73)

18/162

6481	AGTGCTGGGA	TTACAGATGT	GAGACACCAG	ATCAGCCTCA	GAAGACATTT	TCTATTGGAA
6541	AGAGAAAACA	CTATTAGCAA	CCTATTAGTC	TAATATTTAA	TACTTAATGT	CTTCCTTAGT
6601	AATAAACCAA	CTCTCTACAA	CAAAGTGCTT	CCTGGCTGCC	TAAGTCATTG	ATTCATTACG
6661	TTCAACATTT	TCTCAATGCC	CAACAGCCAA	GTGTCTCTTG	TATGCCAAGT	TCTATGCTGA
6721	TTATCAGTAT	TTGAATAAGA	GGGGGTCTAC	ATCTTAAGTA	CTGCTTAAGA	TGAAAGCCTC
6781	TAGGTTAACA	AACTTAACAC	AATGTATCAT	TCACTACTAA	ATAGACCGAA	TACAAAATCT
6841	TGTTATTGGA	GCCCAGAGAG	AAGAATTGAA	ATTCAAGTTT	TCTCTCTCTC	CTTTTCTCAC
6901	TCACCACAAT	AAGTCAGTTG	CACCAAGTCT	TGTAGCTCTT	TACTGAGCCA	TGTTTTACAG
6961	TGTCCCTTTG	TTTTATTTGC	CACACCCATA	ATAAAAATTG	TACTGGCTTT	TTTTCCCTGG
7021	GTTTACAGTA	TTAATACATT	GTCAAGATTT	ACCTCTTCGT	GTAGATTCCC	TGGGGAAAAT
7081	TACCTTTCCCT	CCTTCCCTTA	AATTCCTCAG	AGGTTAGAAA	GCCATTAGTA	ACATTCTGGT
7141	ATGTGGACAA	AGTTTACCCA	TTATGTATGG	ATGTTTTACT	CTTCTATTTT	TTCTGACAAT
7201	AATCTCTTAA	GGAGGTGTGG	TTATAGAATA	GTGAGCTGTT	ATAAGTACTG	TTTTCTGGC
7261	CTTACAACCT	AAGTCTTTTA	AGCTGTTTTCT	TAGTTTGCTC	ATCTCAAAAT	TCGGAATAAG
7321	GATAAAACCT	ATCTCTTAGA	TTGTTGGATT	AAATGAATTA	ACATACTGGA	AGCTCATGAA
7381	ATGTGCCTGG	CACACAGTAG	TGCCTAATAA	ACCATCTCTC	TTATTACAGC	TGTTTTCTGA
7441	TTTCAGAATC	TACACTTGCT	GAGCCAGGTT	CTTTTCATTT	CAAGGTGAGC	AAAAGCATAC
7501	AAGGAAGAGA	TGGAGGTAGG	AAGAGATTAA	GCCCTAGGCC	AAGGTCACAC	ACCGATTGGG
7561	AGCTGGAATC	AAAGGCAATT	TGGTCAGTGA	ATAAAAAGGA	TTCCAAGGCC	CATAAGGCAA
7621	TTCTAACCTT	AGGATCGAAA	TTCTCGGACA	TACAGGAAAT	GCTGGGGGGG	GAATAATCCG
7681	TCTTCTCAGC	CCAAGAGCCA	TGTGAAACCA	GACCTTCAAA	TCTGATGATT	CTCAGCCAG
7741	CTGCCCATTA	GAATCGTTGT	AATTTAAAAA	TACCTTCGGA	AAATTCTAAT	ATGTGGCTAT
7801	CAAAGGTGAT	CATTTGCTTT	TATGCCACTT	TGTTTTACCC	CAAATGGGAC	ATCCAACCTT
7861	TTTCCTTTGA	GAGTAGTTGT	AGGGAAAGGA	GGGGGTGGAG	GGAGGGAAGA	GCGGAAAAGG
7921	CTGGATCCGC	CCTGAGCCGG	TGTCAGTATC	TGGGAAGTGG	GAGGCGCGTC	AGCAGTAAAC
7981	AGCTTCTGCT	AGGATTATTA	TCTCCTGCCA	CACACTCGGA	TTTGAAGGCT	CCAAACGAAA
8041	CAATGCAAAA	CGCTTCAGTG	GAGTTCCAGA	AGCGTTAGAC	TAAACGACTG	GGTCTGTTTG
8101	GCCAGTCTGA	GCAGCTGGGC	GCAGATGCAT	AGGCAAGACT	TAGCCCGCCT	AGACTTTTCT
8161	GCCCACCTTA	TTCCGATCAA	AGCAGAAACC	GGCCGGGCGC	GGTGGCTCAC	GCCTGTAATC
8221	CCAGCACTTT	GGTAGGCAGA	GGCTGGCGGA	TCACCTGAGG	TCAGGAGTTC	GAGACCAGCC
8281	CGGCTAACCT	GGTGAACCTC	CGTTTCTACT	GGTGGCGGGC	GCTTGTAATC	CCATCTACTA
8341	GGGAGGCTGA	GGCCGGAGAG	TCGTCTGAAC	CCGGGAGGCG	GAGTTTGTAT	GCAGTGAGCC
8401	GAGATCGCGC	CACCTGCATTC	CAGCTTGGGC	AACAGGAGCA	AAACTCCGTT	TCAAAAAGC
8461	AAGCAAACAA	ACAAAAAAT	GCAGAAACCG	AGATCCGGAA	GAAAACCTCG	GCGAGATTCA
8521	CAGAATCCAG	GAATAAGGT	CTCTAGAAAT	TTGTCCATGG	TCCCAGATCT	CCATTTCTTG
8581	TGGGTGGGGC	AGCTGTTACC	AGATCCCTAG	AAGCAAAGGT	TTTTTTGGGG	GACCGTGTCT
8641	CACTGTTGCC	CAGGCTGGAG	GGCAGTGGCA	CGATCTCGGC	TTACTACAAC	CTCCGCCCTC
8701	CAGGCTCAAG	CGACTCTCCT	GCGTCAGCTT	CAAGAGTAGC	TGGGATTACA	AGGTATGTGC
8761	CACCACGCCC	AACTTATTTT	TTTATTTATT	ATTTTATTTT	AGTAGAGAGG	TGTTTCACCA
8821	TGTTGGCCAG	GTTAGTGTCT	AAGTCGTGAC	CTCAGGTGAT	CAGCCCCCTC	GGCCTCCCAA
8881	AGTGGTAGGA	TTAGAGGGGT	GAGCAGAAAAG	CAAAGGTTTT	TGAGTGGCCA	CAGGCCCCAC
8941	TCTATTTCCCT	TTTCTGCCTG	TAATGGCAAC	CTAGACGCTT	GAGCTTCTTA	AAATACAAGA
9001	GTAAGTTGCA	TGTCAGGCAC	CGTTCCTACAT	TAGGGACATT	AGTCTGTTTT	ACAGACACCT
9061	TTCAACTCCC	TGGTTAACTT	TTAGGTAATA	TACTCTGCAC	TTTAGCAGGA	ATGGGACCTA
9121	TAACCTCTCAC	AGAATTAGGA	AAGTGAGGCT	GCCTACAGCC	TAAATTGAGA	AAAAAATAGA
9181	CGGGGGACTA	GTCGGAGGAC	CAAACAAGGT	TACCAACACG	TTAGAGTTTT	GCCTTCAATT
9241	TACATTTTTA	AAGTAATCAC	AACGAAGTGT	TTAGATCACG	AGGCATCCCT	GCATGTAAAC
9301	TGTTAGGCAC	TAACATATGT	CGATCTTACA	AAGCATTAAAC	TAGAATATTT	CTTTAGAGTA
9361	TGATAGTACG	TAACAGACCT	ACTATTACAT	ACAAACAGAC	CAACCTTTAG	TAACAGCGCT
9421	CCCCAAAAAC	CGAAAAGCAG	TAATACGCTT	TGCTCAAGGT	TGGCATAAAA	TTAACTTACC
9481	TTAGTGCCCT	TTTTCTTCT	ACCTACAAGC	AGTGAGGTTA	GCTCTTCTTT	TGAAACGGTA
9541	GGGGGGCTCT	GAAAAGAGCC	TTTGGGTTTG	ATAGCGTTTC	CGGGAGCTCA	GATACCTGTC
9601	AAATCACTTG	CCCTTGCCCT	TGTGGTGACT	CTCGGTCTTC	TTAGGCAGAA	GCACGGCCTG
9661	GATGTTAGGA	AGGACGCCGC	CCTGAGCAAT	GGTCACCCCG	CCTAGCAGTT	TGTTGAGCTC

Figure 8 (Page 3 of 73)

19/162

9721	CTCGTCGTTG	CGGATGGCCA	GCTGCAAGTG	GCGCGGGATG	ATGCGAGTCT	TCTTGTGTCT
9781	GCGAGCCGCG	TTGCCGGCCA	GCTCCAGGAT	CTCGGCGGTC	AGGTACTCTA	ACACCGCCGC
9841	CAGGTACACC	GGCGCGCCTG	CCCCAACCCG	CTCTGCGTAG	TTGCCTTTAC	GGAGCAGGCG
9901	GTGCACTCGG	CCCACCGGGA	ACTGGAGACC	AGCGCGAGAA	GAGCGGGATT	TCGCTTTGGC
9961	GCGAGCTTTG	CCTCCTTGCT	TACCACGTCC	AGACATTGCA	ATCAGACAAA	AATCACCAAA
10021	ACCAGCGGCC	TAAGCTCACG	AGAAAACAAA	CAAAATCAAG	AAATATGTAA	AACATGGCCG
10081	CTTTTATAGG	TAGTTCCCTG	GGAGTAAATC	CGACTTTTTG	ATTGGTCGGT	AGCAAATGCT
10141	AGTCAGATAG	CCAATAGAAA	AGCTGTACTT	TCATACCTCA	TTTGCATAGC	TCTGCCACG
10201	GATGACAAC	GTGCAGTTTG	TCTTCCAATT	AACTAAGAGG	TACTCTCCAT	CCCTCATTAG
10261	CATAAAAGCC	CTATAAGTAG	CAGAAATCCG	CTCTTTACTT	TCGACACATT	TCTGGTGTCT
10321	TAAGATGCCT	GAGCCAGCCA	AGTCTGCTCC	CGCCCCGAAG	AAGGGCTCCA	AGAAGGCAGT
10381	GACCAAAGCG	CAGAAGAAAG	ATGGCAAGAA	CGCAAGCGC	AGCCGCAAGG	AGAGTTACTC
10441	TGTGTACGTG	TACAAGGTGC	TGAAACAGGT	CCATCCCGAC	ACTGGCATCT	CTTCCAAGGC
10501	CATGGGCATC	ATGAATCTTT	TCGTTAACGA	CATATTTGAG	CGCATCGCGG	GCGAGGCTTC
10561	CCGCCCTGGC	CATTACAACA	AGCGCTCGAC	CATCACCTCC	AGGGAGATCC	AGACGGCCGT
10621	GCGCCTGCTG	CTTCCCGGAG	AGCTGGCCAA	GCACGCCGTG	TCGGAGGGCA	CCAAGGCCGT
10681	CACCAAGTAC	ACCAGCTCCA	AGTAAACATT	CCAAGTAAGC	GTCTTAACAC	CTAACCCCAA
10741	AGGCTCTTTT	AAGAGCCACC	CAGATACCCA	CTAAAAGAGC	TGTGGCCAGA	CGCCAAATTT
10801	TATTTGGCGG	CGGAGGGGTA	TTAGAATATA	GGAAGTGGAG	AGGGGTGGGG	ACAAGTGTGT
10861	CAGCTTAGAG	AGGGACAAAG	GGTCTGAAC	CCGAAAGAAG	CCAGCCATTA	AAAATGGCTT
10921	TGGGGTCAAT	TCGTTGTGCT	TAAATTTAAA	ATGGAGACAA	GCGGCCATTT	TGCTAACTCG
10981	GCGTTCCCGG	AAGAAACCGC	AGGCTCGCTT	AGGTTTCAGA	CCCAGCTGTC	TGTCCTGTCT
11041	TACGTCGCCA	GGATCAACGG	TTGCCGTAAT	GTCATAATTT	CGCCACCAGC	TTCTAGCCAA
11101	TAGGCTGTCC	TGTCATTTTA	AATATTAACC	AATCGAGGGA	AAGCTGTTTT	GAGACTCTGA
11161	TTTACATAGC	GGACCGGAGT	GGGAACCTGG	GCAGTAACTG	CCTAAGGAAG	GACTCCCCCT
11221	CTGTTTTTCGT	GGCGCACACC	TTCGTAGTAT	ACTGAAGGGT	GTGTCTCCTG	GGTTTCCAAC
11281	TGCCCCGGTA	ATAGTCTTTT	AACCTAATAT	GCGTCAGTTT	TGATAACAAC	ACTAAGGCAG
11341	TACAGAACTA	AAGATGTAAG	CAGTGCGCCA	GATGTTGCTT	CATACATCTT	ATTCTATTCA
11401	ACTGGTTTAT	TCAAGATTCA	AATCAAATCA	AATTTTGCTT	GAATCCAGT	GCTCAGTCAG
11461	CCATAAATGG	TGTGTTGCCT	GATTGAAACT	TAAAATCTCC	GTAGGGGGCT	TGTAACATGC
11521	AGACAAGTTT	GAAAGTTGCT	TTAGGAGAAG	CCAACCTTTA	ACTGCTGGGT	AAATTGACAA
11581	GCCTTCGAAC	ACTGAACCTG	AGGCCAGTAA	GGACTAGGCG	CTGGGTGGGG	GAGAATGAAG
11641	AGGAGACGTC	ATTAAACTTA	GCACATACAC	TGTATCTCCT	AGAGGACTCT	CCCTTCCTAG
11701	ACAACTGCAG	GCCGCTTTGT	GGCCTGGGAA	ATTCCACATT	CCCTTAAGTA	TTTTACTCAT
11761	GGTCTTTTCC	AGGTAAAGAT	TTTAAGATGA	AGGGTTAGAC	GTAGTCTACC	TATCTTTTTTA
11821	TTCAAGTCTA	GAACACGTTT	TTAGCACCTA	GAAGTTTGCT	TTCTCCATTA	AAAACCGGGA
11881	ATATACAATA	AATAAAATTA	GTGTTAAAGC	AGATTTTAC	AAACTTAAAT	ACCATGTAAT
11941	TTAGGTTACA	GTTATTTAAC	ATAAGGACTG	TGTGATCTTA	AATCTGCAAT	TTCTTTTACA
12001	CCTGGGAAAT	AAACTAAGGC	CTGCTTTTGG	TGCCAGACAA	GGCCTTATAC	TTGAACACTG
12061	CTGTGCAATC	ACAGGCTGCC	TTGCCTAGAT	AACTTATCTG	AGAAATTCTG	ATGAGAAATG
12121	AAATTTCCAG	AGTCCCTCAC	AAGTAAATTT	TTTTTCTTTT	TTTTTTTTTT	TTTTTGAGAC
12181	GAAGTTTCTC	TCTTGTTTCC	CAGGCTGGAG	TGCAATGGCG	CGATCTTGGC	TCACAGCAAC
12241	CTCCGCCCTC	CGGGTTCAAG	CCATTCTCCT	GCCTCAGCCT	CCGGAGTAGC	TGGGATTACA
12301	GGCATGCGCC	ACGACACCCT	GGCTAATTTT	GTATTTTAC	TAGAGACGAG	GTTTCTCCAT
12361	GTCGGTCAGG	CTGGTCTCGA	ACTCCGGACA	TCAGGTGATC	TGCCCCCCTT	GGCCTCCCAA
12421	AGTCCTGGAT	TACAGGCTTG	AGCCACCGCG	CCGGGCCTAA	ATGGTTTTTT	TTTTTCTAT
12481	GCCTCTAATG	GACCTGGTCA	CTTATTTCCA	TTCAGACTGA	CCGCTCTCCT	ACCTGCCAAC
12541	TAACATAATCA	GTGTAACCAA	AATCTGCAAA	CAAAATTCAG	TATTCCTTCC	CCGCCTTTTC
12601	CCCTTTCTCT	TACATAGATT	ATGTTTTTGC	CTGTGTTAGA	TGAAATAATT	CTATTGCTTG
12661	TTCTCTCTTC	TGTACAAGTA	CCCAGTAAGC	AAATTATTAA	CTTCTGGTTC	ATTTATTTCT
12721	GAAATTTTCCA	CCAAGACAGT	GTTTATGTGA	GTCATACAAT	AAGAACCAC	AGAAATGTGT
12781	GTCTTGGAAG	CAGGTTGTCT	ATCCCTGGAC	CCTTTGAGTT	TTCTGTTTAC	TTTCCTTTGG
12841	CTTTTGTCATG	CTAAAAGTTT	ATCGTCCGCG	TTTGTGTTGTT	TTGGTTATTC	TAATTGGACT
12901	TGGCTGATTG	GTTGCATATT	GGTGGCAGTA	GTAGAATTTG	AATTCTGGTT	TTCTGGTCAC

Figure 8 (Page 4 of 73)

20/162

```

12961 ATCATTAAGT GATTAGTCAG TGGAGAGGAC AGGAAATCTG GTTTATTTAT TAACCTTTTT
13021 TTGGGGTGTT TTTGTTTGAA GATGTTGATA TTCTCTGTGA GGACACAGGG TTAGAGTTGG
13081 TGTTTTTCTT TCTGACTTTA CATGGGATTT GATGTTTTGT GCTTGTATGC CTCTTCCAC
13141 CTTCCAAAAC TTGTCTTTTT TGAGTCCAAA TAGTTGTCGA TATCTGCAAA ACCAGTATTC
13201 CTGTGTTAAG ATGATATGAA TATAAAATGG CTGCCCTGTT ATAACTTTTG ACTTTAAGAA
13261 AGTGTTAGGA CTAACAGGAG ACAAAAAGGA AATCAAGGAA ACCGAATGTC TGGTCTCAAT
13321 AACTGCTATG GCAGAGGCTC TACAGCTTAT TATTAATTTT AGTAATTTCA CATTATTGCC
13381 CCTTCACGTT CTTTAAGTAA GGTTAGAGGA CAGAAGAAAC ATAATGTTGT TACAAATTGG
13441 ACTATTGAGT CAGGGAAAAA AAAGAGTGCT TTCAATATCT GAATAAAACA AAGATTTAAT
13501 ATTTTCTAAA CCTTAACGAG TTTATTGTAA GGGATGTGAT GCTGGAAACT AGGAAACTAG
13561 AATTTTCTTC TAAACTGAGA ATCAGAATTA TTCATATTCT CAGCAGTGGT GCCACCTGAG
13621 GGACTTCTGA TCTTAATTAC ATACTTTTAT TTCTTTAACT GATCAACATG CTAAATAGAT
13681 AACCTATGGC TCTGTTTTTA CCCACTTTAA ATTCTGTTCT ATTAGCACGG TTAGCTTTCC
13741 TAATTGGCAA TAAGATTGAG ACTATCTTTT TTTTTTTTTT GAGACAGAAT TTTGCTCTGT
13801 GGCCAGGCT GGGGTGCAGT GGCACAATCT CGGCTCACTG CAACCTCTGC CTCCAGGGTT
13861 CTAGCAATTT TCCTGCCTCA GCCTCCCGAG TAGCTGGGAT TACAGGTGCA CCACCACGCC
13921 TGGCTAATTT GTGCATTTTT AGTAGAGATG GGGTTTCGCC ATGTTGGCCA AACTGGTCTC
13981 GAACTCAGGT GATCCACCTC GGCCTCCCAA AGTGATGAGA TTACAGGCGT GAGCCACCGT
14041 GCCCAGAAAA GACTATCTTA TTTTATGAAT TTAAATAATT GTGAAATTAT CCACTTAAGG
14101 GAATTAATAA ATTATAATGT AATCTTAAAT TTTAGTTGGC TTACATAAAG ACTTAAATA
14161 CATCAATTTA AATAAAAACT CATTTGTCTA AAAAAAATC AAAAAATTTT CTTGTGCTTT
14221 AAATGTGCTA CCTCTTTAAG TTCTAATTAA GAGAAAAAAA GTTTAACTGT GAGTTTCATT
14281 AGTGGTCTTA GTTAACAGCT TAAAGTATTT TGTAACAAAAA ATACTTCACA ATTTTAAAT
14341 AACTTAAAAA TATTAATACC TCTTTTATTA GGTTTTTTTA ATAAGGAAAA TATATAATAC
14401 ATCTAATCAA GATTTTTTTT GGACAAATTG GCTTAATAAT TTCATTTTAA AAATGGCTTC
14461 TTTATTCTTA TACTGTAAAA ATAATATTAG CAGAATATTA TAGTATACAC AAGTTTAGGG
14521 TTCATATTCT AAAAAACAAA AACAAAAGCT AATTTAACTT GCATTTACTA AATTTCTTCC
14581 ACTAGTTGTA CTGGTTACAT GAGTTAACAT CACTTTATTT ATTATTCTAA AATTGTAAAT
14641 TATTCATTGA ACCAAATTAA ATGATAATAG ATAATGTCAT TTTTAAAAAT GGAATTAAAT
14701 TTTATGTTAC TAATTATAAG GATTCAATGT GTGAGCTTAA GTACTGAGTT CACAGTGTAT
14761 GATAACTTTA AGAATTTAGG TGAATATTAT TAAATTGAGT AAATTAATTC TCAATCTTTG
14821 GATACCTGGA CAATTTCTAA ATTGGAGGGT ACAAATACA AATCACAAGA AACAGTGTAG
14881 TTTTATGCAA ATAACATTTT TACACAGTTT AGAATAACCA TTGATAACA GATAAGAGAA
14941 CATATGATTG CCTTAGAATA GATACTGTTG CTTTCGCCAC TTTAGATTTG TAAATCACGT
15001 ACTGTATACG TGTGGGCGTA GAGGACCATG CAGGTTTTGG ATGACTGCCT CTGTTTTCGT
15061 CATGCCTATG CGGGAACACA ATTGCCTGCT TTGTTTAAGG GCTATGGTTA ATCCAAACAG
15121 CTCTGACTCT ATCAAGTACT ATAGCTACAG AGAAACACAA GTAAGCATTC GAGATAATGA
15181 CTACCTTGAG CCTTTACTTA TTTAAAAAGT TGTTACTGTT TGTTAATGTG GTACATTCAA
15241 TTTACTATGG ATTGTCCTC TAAAATAAGA CTTCAATCTT TTTCTTATTT TTATATAGCC
15301 ATGATTTATA TTCATATCTT AATGTAATAA CCAATCTTCT CTGACAACAT TATAACAATG
15361 CTGGAACCTC CATTTTCAGT ACTTCAAACA ACAAATACTG CTTTTATACT TCAGAGCAGA
15421 TGGATATGTG CTTCCAGTG TAAACACATT TGGAATCTCA CTGAGAAATA CACTATCACT
15481 AAAAATACAG TTCTGAGATT CATTAAAAGA CCTCCAGAAT TCTGGAAGTA GGAAGTTTCC
15541 TCTTCAAAGT CTACAGAGGA AGATGAGGTC TGAAATAGAC AGCTTCTTCC TTCTTTTACC
15601 TGTGGTATTA TTCTGTTTTG TCCTTTTCTC CATTATCTGT CTTTCCAGTG ATGAAATTTT
15661 GATCTGGCCC TCCCAAGTAT TAAAAACAA GCAAATAAAC AAATCTCAGT TATATTTTAC
15721 TAAGATATTG GCATGCTAAC TTTTTCAGG TTTGTAACAA GGACCTTTAT AACTTGACTA
15781 AAAGTTCCTA AATAAGAATA TTTACTAGAA AATTTATTTT TGCCTGTGGC CCACATTTGA
15841 GTCAAAATAA TCAATTAGGA AAAATGAAC TGTTTAACTA AAGTTGACCA AACTGATCTT
15901 TGACCAAAC TATCTTTGAG ACCTATTCAT CTAAGACAAG CCAATTAAAT TCTTGAGAC
15961 AATTTGTACT TTAAGGAATT CTTATAATAT TTGTAATTAC CCTCATAACT TTTTTTTTTG
16021 CCCTACTTCT GTGCTTCTCT AATATGCAGA TTATTAAATG TTGTTACAAA GCCATTGTCA
16081 AAAAAACAAA AAACAAAAAA CTAAACAAAC TCACATGGTT AGACTTGCTC CTTTATGAGA
16141 TATTTTACC AAAAATGGAG GAGTTGAAAA ACTCTGGTGC CAGAAATCGT GAAGACATGG

```

Figure 8 (Page 5 of 73)

21/162

```

16201 CCTACCTAAC ATGGAAATGT TGGTTGTCAG TGGAAAATAC TACACAGAGA TAGCCATAGT
16261 GCTGCACAGC CAATCTTAAG TGTTCCTAGA GAATCACTAA TTGTTTCTAG AGAATCACTA
16321 ATTGTTTTCT TTTAACATTC TTGGTTTATA CAAGAAGAGA GTATCCATAC TAAACTCTTT
16381 TCTACTGAAA ATAATGTGCA AACATAACAT CCTATTCCTA GACAGTTTGT AGTTTTTTTC
16441 TCCCATTCTT ATTTTATAAA TCATCTTTTT AAAATACTTT GTTGAGTGAA ATCAGTCCAT
16501 TGCTTGATAT ACCTTGAGCA CAAGTAAATA GTATGCCAAA AATTAAATGT CTTTCAGTCA
16561 CAGTTTGACA AACTCAACTA CCCTGAGCCT ATAGAGTGGT AATAATTGCC CTACTCATAA
16621 AGATGGGGTG AAGATTAAAT GAAATAGCAC CTATAGAACA CTAGTTCAG ACGTGGTATC
16681 ATGCTAGTAA AATGGCTGCA CAGCACTGCT CAATGATGAC AAAAAGTGAA GCTTCTGGAG
16741 ACAGACTCCA AGTTTGACTC CCAGATCACC ACATATAAGA TGTGGGACTC TGAGGCAGGT
16801 CATTTAATCT CTCTGTGCAT TAGTATCCTT CTCTATACCT TTACAGTGAT GGTAATAGCA
16861 CCTACCTTCT AGAAGTATGT GAAGATTAAA GATCCTTAAT GCATATAAAC CACTGTGTTT
16921 ACTGCTGTTT GACAAATTTT ATTTATAACC ATCTTTACGC TCCTAAAAGG ACTTGAAGCA
16981 GCTTAGTACT GAAGACTTTG GTAGGAGTTG GCCTTCTATA AATTATAAGA ATTTCATAAA
17041 TTATTTGATA TGAAAATGCC AGTTGATCAT AGTATGTTA CCGGGGTCCA ACAGGTTGAG
17101 AAAAAATACA CTTTTTTTCC CTGAACATAT GAAATTAGCT CTCTAGGCAT ATTCCTAAGG
17161 ACTTAAAGAA TGATAACTAT CATTTCTCTT AAATCTTCCA GATTTGGAAG GATATATATA
17221 TTCAGCACAT TGACAGACAA TCCCAGTAGT CCTAAATTAA AAGACATTAA AAATTAGTGA
17281 AACTTTTCCT ACCTTTAGCC TGTGTAATCC TGGATGACCA AGCATAAAAT TAAATTGAGT
17341 AGAGTATACC ACTGTAACAT TTCCTGAAAAG GTATTCTAGG CTCTGAGTAA TTTCTTTGGG
17401 GTCTGAAGAT CAGTTTGACA TATCCTCAAG TATCATGAGT TCATTATAAT TAAGAAAAAG
17461 AGAGTAAATC TGGAGAATGA GCCACTTTCT TACTACTCCT TGACCTCAGT TCTTTTTTTC
17521 AGAGACAGGG TCTCACTTTG TTGCCCAGGC TGCCAGGCTG GAGTGTAGTG GCGCAATCGC
17581 ATCTCATTGT AACCTCCACC TTCTGGGCTG AAGCCATCCT CCTGCCTCAG CATCCTGAGT
17641 ATCTGGAACC ACAGCAGGTG CACACCACCA TGCCAAAGCTA ATTTTTTAAA AAGTTTTTTG
17701 TAGAGATGGG GTCTTACTAT GTTGCCCAGG CTGGTCTCAA ACTCCTGGGC TTAAGTGATC
17761 CTCTGCCTC AGCCTCCCAA ATTGTTGGGA TTACTAGTGT GAGTCACTGT ACCCCGCCCC
17821 ACTTCAGTTC TGAGGAGGAA AAAATATGTA ATAATAATGG GACTTTGGTT TGCTGATTTA
17881 AAGATTCATG TAACCTTATC ATCCAATGCG CAATTTGTAG AATAATTAAT AGAGACATCT
17941 GGTCTCATGT TTCTACAGTT GCTCATGCCT TGATAGTAGA TCTCCTTGCT GCTGGCTCAG
18001 AAGGGTAAAA GAGCAGAAAT GATGGGGCTT CTCTCATTCT ATGAGGAAAT AGACCTATGT
18061 AGAGGAGGCT ACCTGTGGTA AAACCTTATC CTCATCACTT AAAATTCTAG GCTTATTCTC
18121 TGACCATATC AAGTTTTCAA ATGGTAAAAG AATTGGATTC AAGAGAAATA TGAATAAACT
18181 TTTGTTTTCA CTTTTCTCCC TCCTCTCCCC CCATTCTCCC TTCCTTTATT TTCTTGTCCT
18241 TAGTTTTCTT TCACTTTTTT TGTCTACTAT TATTTGCCCA AACTCAACTG TAGGCTAGAA
18301 CAAAAAATAA TTGAAAATTA AAATGTGCCC CTTTGTGTGT TAGACTTGCT TAAACAATTG
18361 GGGTAATGAA CCTTGACAC TAGATTTTAA AACACACACA TTTGAGCTTC AGTGCAGTGA
18421 AATAAATATA TTTTAAACAA TTAATAAATA AAATTGCATG TTTAAAAAAT CTGCAGAGAA
18481 CAATACACGT TGTGAGATCT TGAATGGAAG GAAAAGTCT AGCCTCAAGA GTGGATCAAA
18541 GATGCTCAGC AGGCAACAGA GTAAGAGCAT GTTGAGGGT TTAGAGAGTG TGCTCAGGGT
18601 TCTAGGCTCT AAAAAATCAGA CAGTCCCCAC GGCCTGGCCT TCGTCGCTGT ATCTTCTTTA
18661 TGAAAAACAC TAAGTCTTTT TCCTCACTGG ATAAATTTTT ATCCTTCAAG TTTAGATCAA
18721 ATGGAACCTT AGGACACTGA CTAGGTTACA TTCATCTTTT AAGAGCGTAC AGACATTCAA
18781 GGGCTAGAGG ATGTGGGTTT ACTGCACAGG CTCATTATCC AACAGCTGTG CTACCTGGGA
18841 AACTTAACCT CTCTGTGCCT TAATTTCTCT ATCTATAACG CAGGGAGAAT GACAGTAGGT
18901 ATCTCATAAG GTTGTTGGAA CAACTAAATG CATTGGTATC TATTGTGTAA AGTGCTTAAA
18961 AACTGCCTG GCACAGAGCA AACATCCAGT GAACTTTAGC CATCATCAT ATCATTGTTC
19021 TCAGAGTCAA ATACAATATC TCATATCTGA TAAATTACAG AAGTGAATCA ATCACTCTCT
19081 CTCTTTTCTC CAGGGGGAGA CAACAGCTTT TAGACATATC TTTTCCAACA GTCGTCACTG
19141 CTGGACACTG TTTTATCTTG CAAATAAACC AATGAAAATG AGTGATCCTA GAAGAAGATA
19201 AATGGAGGTA TTTTGAACAA TCAAGAAGG ACAAATGAAC ACCTGGCTGA GAAAAATTAG
19261 CTCTTTTTTC TATGCATAAA ACTATTAAAA TATTCTTCAT AGAAATTTAT GACACAGGAA
19321 ACATAAAGAC AAAATTAAAA TAACTCCTAG TATCTCCTAT TCTTTTTATA TGTATATTAT
19381 ATATACTCAT ATTCATATAT ACATATATCT CACATCATGT ATCATATATA AAATAAATTT

```

Figure 8 (Page 6 of 73)

22/162

```

19441  AGGTGTCATG  ATATATATTT  AGATAAAATAT  ACTTAGAAAAC  TTTTTTATGG  ATGTATAATT
19501  TATGGATATA  TTGATAATTA  TGTATTTGTT  ATTGACTACT  TCAATTGATT  CCCATTTTTA
19561  TGCATTATAT  TATAGATTAT  ATAGCTCACA  CATCTTTGTA  CATAAATCTT  TGTTCAAATA
19621  TTATTTCTTA  AGGATAGACT  TCATGAAGTG  GAAATACTAA  ATCAAAAAGTG  AAAAACATTT
19681  TCTAAGGTTT  TTAACATATA  CATTGCCAAA  TTGCTATTCA  GGATCATACC  AATTTATAAT
19741  CCCAAAATAA  TATGGAAAAT  CCTGTTTTAT  AGCACTCATA  TTTACAATAA  ATTTTAAAAA
19801  TCACTGTTAA  CCTAATAGTC  CTTCAAAAGA  AAAAAAAAT  GAAATTACAT  TATTTTAATG
19861  ACTCTATTAG  TGAGGGTCAT  TCTTCCCATG  TTTCTTGTTA  GCCATGACCC  TATAAGAAAT
19921  AAACGCACT  GCAAAATGAT  AAACATGACA  TCAATCATT  CATGGGAAGG  CACTATATAA
19981  AGAATAATAC  CTTAGGTTAA  GGCCACATAA  ATATTTATCA  GGTGCCTTTT  CTGCGGAGGA
20041  CTCTGAAGGG  ATACTAACT  GCATTAGCT  GCATGCAACT  GAACTACTT  TTACCTACAT
20101  TGTCTCTTAT  AAACATTATA  ACTACTCTTT  GAGAAAGTGT  TTAATATGGA  CTGAATTGTC
20161  TCCCCATCCC  CCCAAATCA  TATATTGAAG  CCATAAACCC  CAATATGACT  CTATTCCTAG
20221  ACAGGACTTA  TAAGAGGTAA  TTAAGGTTAA  ATGAGGTCAT  TAGGATGGGT  TCCTAACTGG
20281  ATAGGATTGG  TGGCCTTATA  AGAAGAGGAA  GATTCTGCAC  TTGGTCTTCC  AAATTAAATA
20341  ATTTATTTAA  AAGAAAAAAA  AAAAAGAGGA  AGAGAGGGAG  CTCTGCACAT  ATACTGAGGA
20401  AAGGCTATGT  GAGCTCTCAC  AGTGAGAAGG  TAGCACTCTA  CAAGCCAGCA  AGAGAGCCCT
20461  CAACAGAATC  CAGCCATGCT  ATACCCTGCT  CTGAGACTTC  CAGCCTCCAG  AGACTGTGATA
20521  AAATTTTGTT  GTTTAAACCA  CACAATCTAT  GGTATTTTTT  TATGGCAGCC  CAAGCCAACA
20581  AAGACAGCAT  CATTGCTGTC  ACTTACAGAC  AAGAAAACTA  AGACTAGGAG  AGAGAAAAAGT
20641  TAAACTTGTC  CAAGGTCACA  AAAGCCAGAA  ACAAGTGAGG  TGAGAAGTTG  ACCTTGTTCT
20701  CCTCAATCCA  AGGCCAGGAC  TCCTCCACTC  CACATGTAGA  TAGCCACCTC  ACAGTCAACA
20761  GCCAAATGTC  CACACCCAG  AGTCAGCATT  AGACCAAGAT  GTCTTACCAG  GAGACAAATG
20821  CCTCATCTTG  AATAAATATG  ATCTAACAAC  TTACCCATGT  AAAACATTGA  ATCTCATGAG
20881  AAACAAAAAT  GCAAAAGTATG  TAGAAAACTA  TGTTTACCAC  TTAAGTGACA  GTGATAAAAA
20941  GCTTAATGAT  ATCCTTATAG  TCTTGAGGGG  GTTTGTATAT  GTGGTGAAAC  AGGTGCTCAC
21001  GCACTGCTGA  TAGACTGTAA  ATTGGTCCTA  GAGAGAAAAA  TAAATAAACT  GGAAGGAGAT
21061  ATGCTGTATG  TTTACTTTTT  TTATGGAAAC  ATATGATATA  CCTGGAAAT  CGATTGACCA
21121  TGCATCTATT  TCTTCAATGG  GTATGCACAG  TTGAGCTGTT  CCCATGCACC  AGGCACTGTA
21181  ATGGGACAAC  TGCACATGAC  AGTCAAAAT  CTCAGTCTCA  TGAAGTCGAC  ATGCTCATGG
21241  AGAGGTGCTA  CCCACTAAAC  TAATATTTGT  ATATCAATTA  TGGATACATT  GGGCCACATT
21301  TACAGAAAT  CACTTACAGT  GGGTTACCAG  AAGGGATTTT  TTTTCTTGAT  TGGCAAGAAG
21361  GCTAGGCTGT  TTTGTTGGGG  GCTGGCAGGA  GCTGTCTAGG  CTGCCCAAGT  ATGCAGGTCT
21421  CTTCTATCAT  CCTGTGTTAA  CCATCTTCCA  TGTATCTTTC  AACCTCATGG  TCATCTGCAG
21481  CATGTCTAGG  GGTCAATCT  ATGTTCCATG  CAGGAAAAAA  GGGTAAAGGG  AAAGGGAAAGT
21541  AGGCATGTAC  CATTTTAATG  CACACCTTGG  TTTTCAGAAA  ATTTAAGAAG  AAAGACTTTC
21601  TGCTTTTCTC  TGACTATTCT  GTATTCTGGA  TTACAACGCA  ACAGAAACGT  CACCTTAAAT
21661  TCTAATGTTT  TTCTCTCCTT  GCTTTCAAAA  ACTGACTCAT  TAACCTCCAC  GTGGCTTGGA
21721  AAAATTATTT  CAGTCATCCA  GTAATGAGCT  GTTCATAGAA  ATGTTTGGGA  CATCAAGTCT
21781  GTGTTGTTAG  CATTATACAT  GTTAAGCATT  GAATAAAAAA  CAACATGATG  TGGGTAAATT
21841  TCTTTACTTA  CATATAAGTA  CTTATATACT  TATAGCTGAA  AAGAGAGGTT  GAAATGTCAG
21901  GTGGAACAGA  AATAAGATTA  CCTAGATGTT  TCTCCTATGG  GTGATTTTCA  GCTATGCTGA
21961  TCTTTCTTCT  GGGTCAGGTA  CTCCCAGAAC  TTCCTAATTA  AATGGTGGCC  CTGATCTTAG
22021  TTCTCTCTC  CTCTTAGACA  TTTTCCAGGA  CTACAGAAGA  TGTGCAGTTT  ATAAATGAGT
22081  AGCAGAAACC  TACTGAACAA  ATTATTCAGG  CTCATCTGAA  CAGAGAGGAC  ACCTTCTCTG
22141  CTATACTCTC  TCAGTGATTT  CCCTGCCTTG  GGGTCAATTA  TTGTCTTGGA  CATTGATTTA
22201  AGCACATAAT  AATTGTTGTC  ATTGCTTATG  TTTGGATTTT  ATCTCCCAA  ATAGATGGTA
22261  AATTCTTTAG  TTTAGAGACC  AAGTAATACT  TAAAAAATA  TTTTGTGTGT  GTGTGTGTGT
22321  TTTTCTGTG  TCTCTCAGCC  CTGTAATAGC  ATCGTACTTA  CACTTGTTAG  ATTTTATAGAG
22381  ACAACTTTTA  CAAAACATGG  AATTATCTAC  ATACCCTTTC  TACAAAACAG  ACAAATTAAT
22441  TACTCAGTAG  TTGAACCAA  AAAAGCAGTT  CAAATAAAAT  ACTTGAAAAAT  GAAGAAATCA
22501  TTTGAACAGA  GTTAAAGTTA  ATCGTAAAT  AATGTCTGTA  AAAATTATTG  CCAATCAAAT
22561  ATAAAGTTCA  AAAATAGTGC  TTGAAAAAGG  AAGAATCATA  TGAAAAGGGA  CTAATCAATTT
22621  TAAAAATGTT  AGATATCAGG  AAAAGCCAAG  AAGTGAGTAT  GGTAAGAGTG  CTGTCAAGTG

```

Figure 8 (Page 7 of 73)

23/162

```

22681 AAACCCCTGCT AATCTCACTG AACATGTAAA AATCTGTAGA TGCCTTTATT TTATTCACTC
22741 ACACACATAT GTAGAAAGAG AAATATATGG TAAACATTAA AAAAACCAAA TTAGAATGTA
22801 AAATTAATAC TTTAAAAAAT GGGCTGTATA CTTTCTTAT CACCGGAGAT AAGAATTTAT
22861 TATTTTAAA ATAAAGTTAT TTTCTCTGTG ACTGTTTCCA TGACTTTGCT ACTTAGAAGT
22921 TAGAGATGCC AAAGTTTATC TAAGAAAATG TTTATGGAAA TATTATTTC AATATGAATG
22981 TTTAGAAGAC TGAATTTCCCT GACTGGGCGC AGTGGCTCAT GCCTGTAATC CCAGCACTTT
23041 GAGAGGCTGA AGAAGGAGGA TCGCTTGAGT CCGGGAGTTC AAGAGCATCC TGGGCAACAC
23101 AGCGAGACCC TGCAGCAAAG TAAAAAGAAA AAAGAATTGA AAAAGGAAGA CTGAATTTCC
23161 TTTGGGCAAG TCATGTGACA TTCCTGTGCC TCAGTTTCTT CATCTATAAA GTTAATTCCT
23221 ACATTTTGG GGAAGGGAGA GAAAACTTA GGATAGTGAC TGGCACAGAA GAAGCACTAT
23281 ATACTATATA TATGTGGATA TCATTTGTTT TTATGGTACC ATTTTAGCTA TCTAATGCAA
23341 AATATGAATC TTTTTTTTCT GGGCTTAAA TTATGGAATG TAAGAATTTT CTAAATTCCT
23401 TAATTCTGTG TTAGTTTTAA AGCAATGGAG TAACGTATCT GTCAACTTGT AAATATAAGG
23461 ATCAACCTGA TCCACAATTT GACCCCTAGC CACTAATATT TAATAGTACA ACACTCAGAA
23521 ATTATCAAAG GTCAGAGAAG CCAAACAAAT GTAAAAACAT ACAGGTGCTC AGAAAGATGC
23581 ACCTGTAATC TCTCTAAGGA GAAATATTTT CCAAACTGAG TGACACGGTG CTTTAGTGAG
23641 TTGTGGAATC AATCTCATGA TTTCCAACCT AGTGTTCCTT TAAAAATGAA CTAGTCCACA
23701 GTAGAATATA CTAAAGTGCT GGTGCTTAAG ATAGTATTGT TTTCTGAAA AAAAAAAAAA
23761 ATTTTTTTTT TTTGAGACAG GGTCTCGCTC TTGCCCAGGC TGAAGTGCAG TGGCACAATC
23821 ATGCTCACTG CAGCCTTGAC CTCCTGGGCC CAAGTGATTC TCCCACCTCA GCCTTTTGAG
23881 TAACTGGGAC CACAGGTACG TGCCACCACA CCCGGGTAAT TTTTAAATTG TAGAGACAGG
23941 GTCTTGCTAT GTGCTTAGGC TGGCCTGTG AACTCCTGGG CTCTAGTGAT CCACTAGCCT
24001 CAGCCTCCCA AATTTATGGG ATTATAGGCA TGAGCCACCC TACCTGGCCT GTTCCCTGAA
24061 TTTTTTTTTT TTTAGGTGT TTGTGCATAT GTGTGTGTGT ATGGGTATAA CAGAGAGACA
24121 GAGAGAAAGA AACTTTTCTA TCTCACTTTG CAATCAGAAG TTTGAAGTCT TATCTTTTGG
24181 CTTTGTGTTT AGAAATATTT CAAATGTAGA CTCTCTCCTT TACCACACTG TCCCCTTAGG
24241 CAAGGTCTTT GCCATTCTTC TGAGACTATT GCAACAGACT CCCAACTTCT GACTGTGGGC
24301 CCTTCTCAA AATGATTGTT TATGCAATAA ATCTAAACCC AAGACAATA CAACAATACA
24361 ACAAATTCTC TGCTTAAAAA CTTCCAATGT CTGCCGGGCG CGGCGGCTCA CGCATGTATT
24421 CCCAGCACTT TGGAGGCAGA GCGGGCAGA TCACTTGAGG TGGGGAGTTC GAGACTAGCC
24481 TGGCCAACAT GATGAAACCC CATCTCTACT AAAAATACAA AAAATTAGCC AGGCATGGTG
24541 GTGGGCGCCT ATAATCCCAG CTAATTGGGA GGCTGAGGCA GGAGAATTGC CTGAACCTGG
24601 GAGGTGGAGG TTGCACTGAG CCAAGATCAC ACCATTGCAC TCCAGCCTGG GCAACAAGAG
24661 CAAAACCTCT TCTCAAACCA AACCAAAACA AAACCTCTAA TATCTACCAA ATGTTTCACA
24721 CAAGTATTTG GGGATCTTCA CAAATGGCCC TTATGGAGTT TTCCTTTGCT GAGACCTAT
24781 GCTCTGGCCA CACTAAACTC ATTCAAGCAT CCAGAAAGGC CTCAGCCTTT GTGAGCAAGC
24841 TCTTATCTCC AGGCCTCTCA CAAAGACCTG TTCCAGTAGA AGCTCAGGGG AGCACACTGG
24901 ACATTATTCC AACAACCCTT TCCCCACAGC TATGCAGCCA AATCTGCCAG CTCAGTTAAT
24961 TAATTAAGCA ATTCAGAGAT GAGGGTCTGC CCAGGCTGGA GTGCAGTAGC TGCGACCTCA
25021 AGCTCCTGGG CTCTAAGTGA TCCTCTTCAG TCTACCCAGA AGCTGGGACT GCAGGCATGT
25081 GCCACCACAC CCAGCTAATT TTTTTTTTTT TCAGTAGGGA CCAGGCCAAC CTAGTCTTGA
25141 ACTCCTGGCC TCCAGCCTTC CGAAGTGCTG TAATTACAGG CATGAATCAC TGCGCCCAGC
25201 CAACCCGCCC AGTCTTGTTA GACATGGGGT CTGTAGTTTC TAGTAGGTTT TTGAGTCTAG
25261 GGTTCCTACC TCATGTTTTA TAGTTAATTT AGGGGAGGGA CTGTGTCTGT TTATCTGGGG
25321 ATGTAGGGGT GGGCAGGGGG ATAGAGGGGA CTTCAATTAA TGAAACCAGA AGCAAAACTC
25381 AGTTGAGGAC ACCGGTCATG AGAGTGGCCT GATTATGGCC AATCTTACAT AATGTGTGAG
25441 ATCTTGATAT TACCCCATCC TTGAGAGTCC TCTATAAAGC TACAGGGACT TGGGAGCACC
25501 TTTAATTACA GACAACCCAT GTTCCTGTGG ATTATGATTT ATTAGATTGC ACATGCCTAA
25561 ATAAAGACAT CCTCTGCAGT CTTTGTGACAA TTCTATAAGC ATCTTCTGAC TCCGCAATTA
25621 GACAGCTAAG AGATCTGTGT TACTTCCCTC ACATATATAA ATAATTTTAA ATAAAAATCA
25681 TGGCGTGAAT AATTTCTTTC CTCTACCGAT TTGAAGCTAT CCATTTGGAA GACCACTCTG
25741 AAGAGATGAA ATAAGTCTTC TGCCAAAGAT TACTTATTAA TTTACAAGGA AAAGGGGAAG
25801 TTTTGTTCCT CTCCGTGAAT TTGATTGAAA ATCGAGGGCT TTCTCGAATA GTTTTGGCAT
25861 CCAGGGTCAT TTTTCATTAA AAAGAGAAAA GTCATGTCAA ATATGAATTT CCGCAGATTA

```

Figure 8 (Page 8 of 73)

24/162

```

25921 TTCAGCACTA GACCCTGGGA GATTCTGTAA AGAGGGGTTT TGTTATACTC AACTTTTCCG
25981 GGTAAAACAA ACACAAATAC TCCTCCTCCA AGGGGCGGGG GCGGTGCCTA GGTGATGCAC
26041 CAATCACAGC GCGCCCTACC CTATATAAGG CCCCAGGGCC GCCCGGGTGT TTCATGCTTT
26101 TCGCTGGTTA TTACATCTTG CGTTTCTCTG TTGTTATGTC TGAAACCGTG CCTGCAGCTT
26161 CTGCCAGTGC TGGTGTAGCC GCTATGGAGA AACTTCCAAC CAAGAAGCGA GGGAGGAAGC
26221 CGGCTGGCTT GATAAGTGCA AGTCGCAAAG TGCCGAACCT CTCTGTGTCC AAGTTGATCA
26281 CCGAGGCCCT TTCAGTGTC CAGGAACGAG TAGGTATGTC TTTGGTTGCG CTCAAGAAGG
26341 CATTGGCCGC TGCTGGCTAC GACGTAGAGA AGAATAACAG CCGCATCAAA CTGTCCCTCA
26401 AGAGCTTAGT GAACAAGGA ATCCTGGTGC AAACCAGGGG TACTGGTGCT TCCGGTTCCT
26461 TTAAGCTTAG TAAGAAGGTG ATTCCTAAAT CTACCAGAAG CAAGGCTAAA AAGTCAGTTT
26521 CTGCCAAGAC CAAGAAGCTG GTTTTATCCA GGGACTCCA GTCACCAAAG ACTGCTAAAA
26581 CCAATAAGAG AGCCAAGAAG CCGAGAGCGA CAACTCCTAA AACTGTTAGG AGCGGGAGAA
26641 AGGCTAAAGG AGCCAAGGGT AAGCAACAGC AGAAGAGCCC AGTGAAGGCA AGGGCTTCGA
26701 AGTCAAAATT GACCCAACAT CATGAAGTTA ATGTTAGAAA GGCCACATCT AAGAAGTAAA
26761 GAGCTTTCCG GGAGGCCAAT TTGGAAAGAA CCCAAAGGCT CTTTTAAGAG CCACCCACAT
26821 TATTTTAAAG TGGCGTAACA CTGGAAACAA GTTTCTGTGA CAGTTATCTA CAGTTTAAAG
26881 TTGTGATGCA GCTGAGTTGA AAAGGCTTGA GATTGGAGAA TTAATTCAGG CCAGGCTTCA
26941 AGACCATCCT GGGCAACATA GCCAGACTAC CATCTATACC AGGGGTCCTC ATTTCCCCGG
27001 CCACCGACCG GTAACCGGTC CCTGTCCATG GCACGTTATG AATTGAGCCG CACAGCTGAG
27061 GGGTGAGCGA ACATTAACCA ACTGAGCTCC ACCGCCTGTC AGGTTAGCTG CAGCATTAGA
27121 TAGATTCTCA TAAGCTCAAA CTGTATTGTG AATGGCACAT GCAAGGGATC TAGGTTTCAG
27181 GCTCCTTG TG ACAATCTAAT GCCTGATGAT CTGAGGTTGG AGCAGTTTTA GTCCGGAAAT
27241 CATTGCTCCC AGCCCCTGCA CCCCCTGGTC CGTGGTATAA TTGTCTTACA CAAAACGGTC
27301 TCTTGTGTCA AAAAGGTTGG AGACTACTGG TTTTACAAAA AAGTAAATTA GTCAAGCATG
27361 GTTGGCACGC TCCCTTAGTC CCTGCACCCA GGCCTTTAAG GATACAGTGA GCTATGATGG
27421 TGCTACCTCA CTCCAGCCTG GGTGACAGCG AGTCAGACGT TGTCTCAAAA CTTAAAAAAA
27481 AAAAAAGTTA AAACAGAAAA AGGGCTTCTT GTCAGAGACT GCCGTATATC TAGAGGTCCA
27541 GGAACATAAA AGTCTGATGT CCAATCCTGA AAAGCTCGAT GGTGCACTAG AGGAGGCTTT
27601 TACATGTAAG AGCATCTAAG TTCTGGAAAT GCCAGTGTC GGGGAAGGGA GTGGAGAGCA
27661 ATTTGGCATC CAAACATAAC TTGCTGATAC TTTTTTTTTT TTTAACACAA GTACTACATT
27721 CTAGTCTTTC TGTGGTGTCA TTGTAACAT TGTTCCTTAA TATGCTATCC ACTGACTTCA
27781 AGGGATCAAT AAATAGGAAT CAAGGTGTCC CAGAATATGG ATTAGGGGAG TTTTTTTGTT
27841 GTTGTGTTG TTGTTGTTTT TCATCTATTC ATTATCCTGT AGCTGAAATT TAGAATTTTC
27901 TTCCATTGTG TGTGACTGAT AGAAATAACA AATTTGTAGG TTATAGTTGT TGCAAGAATC
27961 TGGAAATCGT GCTTGCTTAT TTCCGAAGTA CTATTAGGTA TATCAACAAA AACACACATA
28021 TTACGGTCAA GTGGTTTGAT AATTATTTTA ATATTATTGG TCTAATACAA TTGTAACCTT
28081 ATGAATTACT TTAAGTATCT TATTTATGAA AAGAATCTGT AAGTTTCATC AGACTACCAG
28141 AGCATACCGA AGACTGAAAA ATTTTAAAGAA TCCAAACCTT AATGGAAATG TTGGAGGCTG
28201 CCCAATTAGG TTCTGAATTC CACCTTCCTG AATCACAAC TTGTTTTAAC TCTCAGTCTG
28261 AGGTAAACTA CGTTTCTCTT TAAACAGACA TAGTTTAAAT TTCCTTTGAT TTTTGATTTA
28321 GTATTCTTAC TGATCATCAT AAATAACCAA TGCTAATGTT AGTCTACTTT GGACCATGGT
28381 ATTTGAGAA ACTTTGAACA AAGTCCCCTG CAAAACATG CATTGCATTA TTTCACATAC
28441 ATTTATGTTT TCCAGACGGT TCAATAGTAC CTCACTTTTT TGAACCTTAT TGTATAGTTT
28501 GGCATCTTTT TAAAAATTGT GTCCTATAAT GAAAGGTTGT AAACATTATG TTTTAAATTT
28561 GTATAGATAA AATCAACCAC AGACCTTTCC TTGCTTGGAT GTAATTGCCA TTGTTTCCCA
28621 ATGAGTTCCG AATTACTAGG ATTGTGCAAA AATATGCCTC ACTTGCCTGA CATAGCAGAG
28681 AGCCATTTTG CCTAAATGCT GTGCCAGCA ATGGACTGTC ACCAGATTCT CATCACATAC
28741 AGTGAGGATG AACAAC TAGC CTCTCCCAGC AGCTGGCCGG TCTCTCAATA ATATGGGACT
28801 CCCTCAAGAT GGCTTCCTGC ACCTTTGCTC CTCTAGCCTT GTATGTATAC AAGGCTAGCA
28861 TGCCTGGCAT ACATAAGGTT AAAAAACAAA TCAATAAGTT ATGGTTCCTC CTCCAGTTCT
28921 GGGGATTATT AGACCACTTT TTTGTTTTGT TTTGTTTTGG ATGGAGCCTC GCTCTGTCAC
28981 CCAGGCTAGA GTGCAGTGGC ACAATCTCGG TTCACTGCAA CCTCTGCCTC CTGGGTTCAA
29041 GCAGTTCTCT GGCTCAGCCT CCCACGTAGC TGGGATTACA GGTGCCCGCC ACCACGCCCG
29101 GCTAATTTTT GTATTTTTAG TAGACGGGGT TTCACCATCT TGGCCAGGCT GGTCTTGAAC

```

Figure 8 (Page 9 of 73)

25/162

29161 GCCAGACCTC GTGATCCACC CACCTTGGCC TACCAAACCTG CTGGGAATAC AGGCGTGAGC
29221 CACCGCGCCC GGACTTAGAC CACTTTGTTT TGGCCAATAG GACAACAGCC ATAGAACCCT
29281 CCGCAAATGA GAGCTTGTCC CTAAAGATGC TTTATTTACA TAGCTGTGTG CCGCATGAGC
29341 CAAAAGGTGA TAACCTTTGT TCAACACGCG CCTCCAGCCC TTCGGTTAAG TCCAAAGTAC
29401 CATTCTTAGA ATGCTCTAAA ATACATAATT TTTTTTTTTT TTTTTTTTTT TTTTTTTGAG
29461 GAGTCTCTCT CTGTCTCCCA GGCTGGAGGG GAGTGGCGCG ATCTCGGCTC ACTGCAATCT
29521 CTGCTTCCGG GCTAGCTGGG CCTACAGGTG CAGACCACCA CGCCCGGCTA AGTTTTGTAT
29581 TTTTTTTGGT AGAGGGGGTT TCACCATTTT GGCCAGGCTG GTCTCGGATT CTTGATCTCA
29641 AGTGATACAC TAGCTTTGGC CTCCCAAAGT GCTGGGATTA CAGTCGTGAG CCACTGCGCC
29701 CAGCAAAATG CTTTTTGTGG AGCCAATCAC TTTATTAGCG CTTACCTCTC TATGCCTACT
29761 TTATGCTTTG AAATTTTGTG ACAGTGTGGC CGGTCATGGC AAACACAATT CATTCTTATG
29821 CAGGATGTCA CGGTTATTTT TGTATCCAA ACTCATTCTC GCAACGCATT TCAGCTCTTT
29881 AAACGACTTT GTGAGCGGCC CTGAAAAGGG CCTTTGGGTT TTTTTGTTTT TGTTTTTTGA
29941 AGTTCTCAGG AGACCGCGTA TTCTTAGATT GAGCCGCCGA AGCCATACAG AGTGCGCCCC
30001 TGACGTTTTA GGGCATATAC TACATCCATG GCTGTGACAG TTTTGGCCTT GGCGTGCTCC
30061 GTATAGGTGA CGGCGTCTCG AATAACGTTT TCTAAGAAAA CCTTAAGCAC ACCTCGAGTC
30121 TCCTCATAGA TAAGACCGGA AATGCGCTTG ACGCCACCGC GCCGAGCCAA ACGGCGAATA
30181 GCCGGTTTTG TAATGCCCTG GATGTTATCC CGGAGCACCT TACGATGGCG CTTAGACCA
30241 CCCTTCCCCA AGCCTTTTCC GCCTTTGCGG CGACCAGACA TGATTCTTAT CGCAGTGGAA
30301 GGTATGAACT GAAACAGTTC CTTAAATACA AACTTGGCGG ACCTGATTGA AAACAACATG
30361 AGTTGGCGCG GTTTTTTTTT TTTTCAAAT TTGGTCACCA AGTGGGTGGA GCAAGAAAAA
30421 CTGTTTCATT ATGGTTCATT GTTTTGATTG GCCAGTGACA GCTTGCTCTT TGTGGGAGTG
30481 GAAGGGTGTT TGCAAGTTGA ATGCGCTGTA TTCCTGTCAG CTTAATGACG CTAAGCATAG
30541 CCCCATTCCA CATTCTTTTT TATTTCCACT TGCTAACTAA TAAATTACGG AATAGTTTAT
30601 TGGGGAACAT ACAAATAATG TTTAAAGGAG GTCAGATTTA TAGGTCAAGG GATTTACCCT
30661 CCAATCATT TTAATATTTT TATTTAAACC AGGCATTTTG ATGGCCTTCT CTGTGCTGGA
30721 CAAGGTATAA GTTTGGCTAT GAAGTTTCAC TCCTAAAGAC CCTATGTTTT GGGAAGGCAA
30781 AAAGGTAGCC AAATAATTGC AAATTA AAC CTCATAAGTG CAAACTTCTT CCTCGTCACT
30841 TTCCCTATCT CGATTCAAAT ATTTGTTGAA TGACTCATT TTCTGCAAAA GTCTGAGAGA
30901 GACAGGGAAT ATAACTTAA GTCTGGATAA TATGTTTTCC CGGGACGCTC TTCCTGGTCT
30961 GCTGTGCCTG TTTGCTGTGC CTGAAATTCC AAACACTCTT CCCTTCCCTC CGTTTTTAAT
31021 CCCCTTTCAA CTTGCTACAG CTTTAGAGAA AAGAACATTC GTTTTGTACA GTTGGGGATT
31081 AATTGAAGTG TAGGGCTAAT ACTTGATTAA GGTCATTACA AAATCTACAG GGTCTTCCTC
31141 TGGGAGGTTT TTGTGATAAG ATTATTGGTG TTAATAAAG GCTAATCCCC TTGAAAAATA
31201 AATAGAATAG CAGAATTGGG TCTGAATGTG GTTTGAAGAA AGGGACTTCT CAATTCAAAA
31261 TTTTATTCTT AGCTTCCTGC GGGAGCTTTC CAGAATGCCC ATAAGATCCA CTTTTGTTTA
31321 AAAAACAAAA ACAACCCAC CCACCACTCT CTGGTTAATA AATGAATTTT TATTGGGAAT
31381 ATTTAGAATG GGGCTGTGGC CTGTGAGAGA CATTATATAG TAACCTCAGA CTTGCTCACA
31441 TGAAGAGAAG AAATCCAGGA ATGGAGAAAA AAGACCCAGG AAAGGCCAGA ATGCTCTACA
31501 TGTCATATTG TTTGTATCAC TTCTGAAATA ATTGATTACA TTCTTCTGCC CCAAATTGAG
31561 TTCTTAGGTT CTTCCACTCA CTGTCCACAT GCCACAACAC AGACCTTATA ACTAGAGACT
31621 TAGCTAGGAA GAAATGTCAA ACATTACAGA GAAAAAATGC AGAGTCTGAG ATCATAAGTA
31681 AAACCTGAA ATCTCAACAT GCCTTTTAAT TCATGAAAAT AAAAAATATA GCAGCATATG
31741 CAATATGACA ATCTCTGAA AACATACATC ATGTGAAC TA CCCTGGAACA CATCTCGCCA
31801 AGTGCCATCT TCATTTTAAC CAGAGGTCTA GGATGCCTTT CCTTTATTTT GCCTATTATA
31861 TCATTTATAA AACCCTATTT TTATTTTGAT ATTTTATTTA CTTTCTATTT CCTGCTCCTA
31921 ATATCTCCTT TCTAACTTT TCTCAATGAC AGTGACTCAA AAACAATGAA TGTCAGAACA
31981 AATATTTAAA GGATCTGTAC ATGTAGATAT ATATATTTAA AATGGATTCT TCCACTCTGC
32041 GAAGAATTCA GGCATACTCA ATCTTATGGT TAGGGAGAGA TTAGGCTCAC TCGCCTAATC
32101 TGTATGGCTT CTCGTTTCGT TTCCATTTCA CCTTCCTCTC ACCCATCAGA TCAAACATCAT
32161 TCATTGAACA AGAGACCTAA GCCCTTCAGA TTAACACTCT GCAAACAAGT TGTGGTTGAG
32221 AGGATACATG AAGCATTCAA ACAAATAAAT CTATGATATT AATCAGAGGT TAATCTATGA
32281 TATTAATCAG AGGTTAATGC AGTGGCTCAC GGCTGTAATC CCAGCACTTC AGGAGGCTGA
32341 GTTGGGAGAA TCGCTTGAGC TCAGGAGTTC AAGACCATT TGGGCAACAT AGCAAGTCTT

Figure 8 (Page 10 of 73)

26/162

```

32401 CATCTCTACT TAAAAAAAAA TAACCAGAGG TGTATGAAA ATATAAATTG TCCAGAACTA
32461 CCCTCCACAA ACTAACTCTC TCAGAATATT CGATATGAGG AATGAAATAT GGTGTGTGTG
32521 TGTGTGTGTG TGTGTGTATG TGTGTGTGTG TGTGTGTGTA TGCACCTATA TATGGCACCT
32581 ATATATTCAA CAAACAATTC TGATAATTGG CCAGGGTTGA GAATGACTAG CAGCCCAGCA
32641 TACACTATCA GTTTTAAGTA TATAATTGCG CTTTAGTAAA ATGTAAAGAA ATCCCAGAGT
32701 AGAAATACTT TTAAGCTATA TTACAGGTGA GAAAATGCAT AAGTATAGTC TCACCCAACCT
32761 TAGACTATGG GGGCTTTATA ATGTCACAAC AGTTGTTTCC AGGCATTTGG GGACATCACC
32821 ACTGGTCTTG GGCAAGAAAC TCCTCTAGCC AATGGCTGAT TTATCTCACT CCCATCTAAG
32881 GCTTCACTGC ATTTCTCTTT TTCAGCAACC TAACTTATTT AAAAATATCC ATTTTCTGAT
32941 TCATTTTTTT CTGAATTAAA CTGTCAGTAC CATTGGCACA CCTTTGGTTC CGTAGCATAC
33001 CTGTGTCTCT GCTGTGTTTT TTTTTTACCT CCACTCCTTA CTTTCTAGA AAAAAATCTC
33061 TGCTTTTTTCT TTTCACTTTA AATPATTTCA CAAAAAGTTT TCTTGACTTG CACTTCCTAG
33121 GCTTGCTGTC CTTGTGTGGG CACGCTCCCA TAAACACTAT TAATACACTT CGATTTGTTA
33181 AAAATAAAGA TATCTGGACA GAAAATTTCT TTTCTTTTTT TAAGATTTTA AAATTTTTTAA
33241 TGTTTTATTTT TTTCCTAGAC TGGAGTACAG TGGCACCATG ATGGCTCATG GTAGCCTACA
33301 CTTCCCCGGG CTCAAGTGAT CCTCCCACCT CAGCCTCCCA AGTAGCTGGG ACTACAGGTG
33361 TGCACAACCA CACCTGACTA ATTTTGTTTA TTTGTTTGT TGTTTTTTTG AGATGGAGTT
33421 TCGCTCTTGT TGCCAGGCT GGAGTGCAAT GGCGGGATCT CGGCTCACCG CAACCTCTAC
33481 CTCCCAGGTT CAAGCAATTC TCCTGCCTCA GCCTCCCGAG TAGCTGGGAT TACAGGCATG
33541 CATCACCACG CCCAGCTAAT TTTGTATTTT TAGTAGAGAC GGGGTTTCTC CATGTTGAGG
33601 CTGGTCTGGA ACTCCTGACC TCAGGTGATC TGCCCGCCTC GGCTCCCAA AGTGCTGGGA
33661 TTACAGGCGT GAGCCACCAC GCTCGGCCAC TAATTTTGTA TATTTTGTAG AGATGGGCTT
33721 TCCCTGTGTT GTCCAGGCTG GTCTTGAATT CCTGGGCTTA AGTGATCTGC CCACCTTGTC
33781 CTCCCAAAAT GCTAGGATTA CTGGCGTGAG CCACCAGGTC TGGCTGGAAA GATAATTTCT
33841 AACATTATCC TCTCTTAAAC ATTTGTTTCA AAAATTTTAC AAACATGAGA GTAATTAAAT
33901 TTGATTTTCA AAATTCCCTT GAATACTTTC TTAATAGCAC ACAGAAAAGCA CAAAGTATTT
33961 TACATTTGTT TTAATGATGA AATTGTGAAC CCAAACCTAC ACAAAGAAAA ACCCGTAACA
34021 TTATACCCAT ACTTAAACA GATGCCCTCA TATACATAGT AAAACTCTTG GGGGCAGTAG
34081 TGAAGTTGGT TATTTACTGT TTTATGAAAG TGCCATTAG CCGGGTGCAG TGGCTCATGA
34141 CTGTAATCCC AGCACTTTGG GAGGTCGAGG CAGGCTGATC ACGAGGTCAG GAGTTCAAGA
34201 CCAGCCTGAC CAAAATGATG AAACCCTGTC TCTACTAAAA ATACAAACAT TAGCTGGGCG
34261 TGGTGGTGTG TGCTGTAGT CCCAGCTACT CAGGAGGCTG GGGCAGGAGA ATCGCTTGAA
34321 CCTGGGAGGC GGAGATTGCA GTGAGCCGAG ATCGCACCAC CGCACTCCAG CCTGGGAGAC
34381 AGGGCGAGCT CCGTCTCGAA AAAAAAAAC AAAAAAGTGC CGTCATAGTG ACTCAGTTTT
34441 AAGGAATAAA TCAAGGATAT TTAATCAAT AGACTACAGT TAGCTAACGT GACTTGCACT
34501 GAAAGTTATA CGAATATTGG TACTTATTCC CCTGCCCCTG AAGTATGAAT TAAAGACTCC
34561 AAAATTCTTT TTAGAATCTT CAGAGTAAAA GCTAGAATTT GATTTTTTTA AATAATAAAA
34621 AAATACTTTG TATCTAAATC TGGTGATATA AATAACTTGG TGGATGATGC TTCAAGGCTA
34681 TCCATCCCCA AATTTCTCCC TGAATGATAA AGAGAATAAA TGAATATGTC AATTCAAAAG
34741 TTAGAAATTT GGCCGGGCAC GGTGGCTCAC TCCTGATAAT CCTTTCGGAC GCTGAGGTGG
34801 GTGGATCGCA TGAGCTCCGG AGTTCAAGAC CAACCTGGGC AACATAGCCA GAACCCGTTT
34861 CAATAAATAA TAGAAAAAAA TGAGCCAGGC GTGGTGGTCC CAGCTACTCA GTAGGCTGAG
34921 GTGGGAGGAT CACTTGAGCT CAGGAGGTCG AGACTGCAGT GAGCCGTGAT CGCAGTACTG
34981 CACACCAGCC TTGGTGTGAG ACTGAGACCC TGTCTCAACA ACAACAAAAC AAGTTAGAAA
35041 TTTGGCTGGG CGCGGTAGCT CACGCCTGTA ATCCCAGCAC TTTGGGAGGC CAAAAAGGGC
35101 GGATCATTTG AGGTCAGGAG TTCGAGACCA GCCTGGCCAA CATGGTGAAA CTCCATCTCT
35161 ACTAAAAATA CAAAAAAAT TAGCCGTGCA TGGTGGCATG CGCCTGTAGT CTCAGCCACT
35221 TGGGAGGCTG AGGCAGGAAA ATTGCTTGAA CCCAGGAGGC AGAGGTTGCA GTGAGCCGAG
35281 ATCATGCCAC TGCATTCCAG CCTGGGTGAT AGAGTGAGAC TCCATCTCGA GAAAAAATAA
35341 AAAATTCTGT ATGAATGAA CAAAATATCC TTAAATTTTA AAATACATCT GAAAGATATT
35401 TCAAAATATT TAGGAAAAAA ATTATAGGGA TCAGGCAAAT TCTGAGATTC CTTTTTCCCT
35461 GCAGCAAACA TTAGGAGTGC TGCTGTTCTT AAAAAACATG TAACTGTTGC CACACCGTAT
35521 GTTTCCTTGG CTCAGACATA AGGTGTGTGA GTTGTATTTC CAGAATAGCT AGAATAAAAA
35581 TCCAGCACAT CATTTTCTTC AGCAAGTTAA CTAACCTCTC TGTGCCTTGG TTTCATAACA

```

Figure 8 (Page 11 of 73)

27/162

35641 GCAACATAAG CATAACAGAA TAGCAGCAAT AGCTCCTACC TACCTCATAA GATTCTTTGG
35701 AGGAATTAAA TTAAGATTCA GAACACAGCC TAATATCTAG TAAGTAATAA TAATTGGCTA
35761 AAAAAATTTT CTTAAGATTA TATATATTCA TGGGGTACAA GTACAATTTT GCTACATTAA
35821 TATATTGCAT TGTGGTGAAA TCAGGGCCTT CAATCCATCC CGGAAAAAAA AAGTTTTTGA
35881 AAAGATTTCT GCCATGGAAA ACTTTTAATG TACAAATTCA TCCATCCAAG AAATAGAAAA
35941 TATATAAGTA TCAACTCCAA ATCCACCATA TCTATCTCTT CTACACCTTA AACAATTACT
36001 CAGAAATAGA ATGCTTGAGA TACCAGAATG CATGCATATC AAGTAATAAA TGCATGCAGG
36061 ATGTCAACGC ATCCTAGGCT TTCAAATAAA ATTGTCATAC AAAATACTTT AATATTGTAG
36121 TAACATTCTA CATGTTAGAG TGTAGAAGTT AATCGCTGAT GCAAAAAAGG AAAAGAACAC
36181 ATTATACCCA AAGCCTACAG AGAGAATCAC AATTACAAAT ATCAGCCTGC ATGTGAAAAAT
36241 CTTTAATTTG AAAGTCAGAA ATATTTAAAT GATAGTCATT GTTAAATCAG ATTGTGGTTT
36301 GAAAAAAGT TAGTTTAAAA CTGAGTTTAT GAAAAATTTG GGGATTTTAG AGACAGTGTT
36361 TTGTTTTTAA ATGTGTGTGA GTTTGTGAAG AATGTTTTAT AAAATACTGA CAGTATTATA
36421 AGATGACATT ATTATAATAC AACATAAGAA TTTTGGCCTG TACCTCTCAG CAGTCCTCAA
36481 TCACCTGCTG TACTTGACTC AATGATTATC AGAGTGGTTT GTTTTCCTTC TGTGTGTTC
36541 CCAGTTCAGG CAGCTCAGCA ATGGCCTGTG ATTCCAGCAA TTCAAATAGC TGGTAAGTAG
36601 TTTCTTGTTT GTTTTCTCAA ATTTTCAGGG GCTTTTCTCT ACAAGTGATT TCCAGTGCAC
36661 GCCCCTCCAC CCATTCTTTA TTCCTTTACC TTCAGGAAAA CCCTCAGCGC TCCATCTCTG
36721 GTCACCGGAC CACCGTGGTA CATTTACCTA TGGCCACCAG GTGTCACCCT TCTCTTTACT
36781 ACCATGGTTT GTGAATGGTT TTGCCAGAGG TGAATAAGAA TTTAAAATGC AGGTCTTTGA
36841 TTTTTCAAAT GTAGTTGACC TTAAGAATTT ATGAATAAAG CCAGAAAAAT TAAGCTTAAA
36901 AAACACCGAA AGAAAATGAG GACTTAAAAT TTCTATTAAA AAAATTAACA GGCCACAGTT
36961 GCTGATGTTT AGTAAATGTG TTAGTGAAAT GTGTTACTGT GAAGACTGGG GTGTTTCTTG
37021 AAATCTCAGC CCAGGTGAAA TAAAACCAAT ATAAAACAAA TGCTTACCTA ATAAATTAAT
37081 TGTAACATAT TCCTTATGAG GTAGAAGAGT AAGTGAAGCC TTATAGCAGT CTGCTTTCAG
37141 TATAGTAAGA TATTAAGAGA GAAATAATTT GTCATATGCT TTCAGAATGG TTTGCTGGTA
37201 AAATAACCAA TGTCTTACAA CTTAGACGAC AATGTCCCTA GAGTGAAGAA ACACGATTAA
37261 TTCGGCTACC ACAGTTGAAT GAAAATATTC CGTAAGACAA AATGTAAAGA AATTAGAAGC
37321 AAAATAAATG TCTCCAAAAT GACAAAGCGA TTAAGTATAT ACACAAGATG AACAAGAACT
37381 TCAATAAAAT CATGCAGTAT ACAATACAAT ATACATTTAT TAAAGTATAT GCATTTTTAA
37441 TGCAACAATA ATACTAACAG GTAATAGACA AGTTGTTAAT AGTTTTTTCAC TGGCTAATTA
37501 AATAACAGCT TTAATTGTAT TCATTTTATA GCTTTTCTAC AATGAGCGTA AATCACATTT
37561 ACTTTTTTCT ACATAACTTT TCTAACCACA AAAAAAGAAA ATGGTTTAAA AGAAGAGATG
37621 AGATATCTTT GCTAAAATTT AATGCCTAAA GAAGAACTT CTGAGCTGTA TATGGTATCC
37681 TGAAGCACCT GCCCTTCAAG ACAGAATGCT TGTACCACAT TTATGCAGCC AAGTGCATGT
37741 AGTAACATAA AGTAAACACA TGCCATCTGG ATATATATAT TAAGACTCTT TTGACGGCTG
37801 GGCAGGGTGG CTCACACCTG TAATCTCAGC ACTTTGGGAG GCCGAGGCAG GCGGATCACG
37861 AGGTCAGGAG AGTTCGAGAC CAGCCTGGCC AACATGGTGA AACCCTGTCT CTACTAAAAA
37921 TACAAAAATT AGCCGGGCAT GGTGGTGCAC GCCTGTAATC CCAGCTACTT GGGAGGCTGA
37981 GACAGGAGAA TCGCTTGAAC CTGGGAGGCA GAGGTTACAG TGAGCCGAGA TCATGCCATT
38041 GCACTCCAGC CTGGGCAATA GAGTCTCAAA AAAAAAAAAA AGACTCTTTT GAACATGGTG
38101 AACTGATTTT CCAGAATCTA GCAATTCCTG AATGTCCTGG TTAGATTTTT TTTTAAATGT
38161 GCACCGGAAC CCCAGTGGCT CCATGGAAGG ACCTGGGCAT CCTCTAAGCC ACTTGGTGGC
38221 TTCCATTATA CCATCTCAAA ATGAGAGAGC TTAATCCACT TCATTGAGGG AAATACCACC
38281 AGAGTTCTGA CTCCAGAGGC ACTGGCCTAG GGAGGACACC GTGTGTGAAG CCCAGCAGGG
38341 CCACTAGCTG TCCCCACCAA TTACAGTCCT TGCCTAGGGT CCAAAGAAAT GAATGCCAAA
38401 GAGAGCAACA GAGGAGCAAG GGAGTCACAT TCCAGGACCT TCCTTCAGGG ACTTTTAAAG
38461 GAAACATGAC AGCTGAGGAT CAGTTGGTTG TTTTCTGCTG TTCCCTTCA TGTGATTCAA
38521 GCTCACTCAG AAGAAACACA ATGAGACAAG AGAAGAGCCA TCTCCTTCCT TCTCTATTTA
38581 TTCTAGGCAT CTAACTACT GAATGTAGTG GTGTCTGAGA TGTATCAAAC GGTCAGATTG
38641 ACTGAGTTTG AAACCTGTTT CTATCACTGA CAACTATGA GATACTCTAT ACTTCACTTT
38701 CTTTTTTTTT TCATTTTTTT ATTTTTATTT TTATTTTTTT GAGATGGAGT CTCCTCTGT
38761 CACCTAGGCT GGAGTGCAGT GGCGCAAAT CGGCTCACTG CAAGCTCTGC CTCCTGGGTT
38821 CATGCCATTC TCCTGCCTCA GCCTTCCGAG TAGCTGGGAC TACAGGCGTC TGCCACCACG

Figure 8 (Page 12 of 73)

28/162

38881 CCCAGCTAAT TTTTGTATT TTTATTAGAG ATGGGGTTTC ACCATGTTAG CCAGGATGGT
38941 CTCGATCTCC TGACCTCGTG ATCCACCCGC TTTGGCCTCC CAAAGTGCTG GGATTACAGG
39001 CGTGAGCCAC CGTGCCCGGC CTACTTCACT TTCTTCATTT AAAAAAGAAA TGGGGATAAT
39061 AGTACCTATC TCATAGAATT ATTGTAAGAA GTGCATGCAG TAATGCATGT AAGTAGGTGC
39121 TCAGAAGAGT CGGACACGAA GTAAGTGCTT TTATCATCCT TATCATAATT TTCATTATCA
39181 GAACAAGGAG AGACCAGGTA GAAAATTATT GTGATTCTTC AGGTCTGGAA TACTAGAGTA
39241 GCATCCCAAA TGAAGGCACC ATTAACCTTT GCAAATCTGT ATGACACCTT CATGCCAATT
39301 AGAAAAACA CCTCTTCACA ACCCCTTTCA AGATATTTGC CTCCTACCTG CTAAAAACAC
39361 CCATCATACT ACCCACAGAT AGCCATGATG CTTTTTCTGG GACAGGTGCC TCTTCCATTC
39421 GTGCAGTGTA CAGCCTTCAT AGCTGTGCAA CTCACATCAC AATCAGATGG AAGAATCCCC
39481 AAGGCTTGGT GACAGATGAG TTAGTGGGTA ACACAGAGAG AGGATTCAAA GGAAAAGTTG
39541 AACGGGTCCA GAAAATGCAT AGATACATGT GTAAAAATCT GGTAAAGTTA TGACTAGCCA
39601 CGTCCCAGGG TTCAAAGCTT TTCTCAGATG TTAATAATGAA TCATGTAAGT CCCCCAAATT
39661 TAAGGAGTCC TCTTCCAAAA ATAGGAAATG AAATGACATA GGTGTATGTC TCTGAGGTGA
39721 CGGAGGAAAT GAAGGAAGCC TTAGGAAATG GCTTGAGGTT CATGAGAGAG AGTTCAGGG
39781 GAGAGGTCAC AGCTAGGGAT CACCGGCATG CAGGAACCTA GAAACCTAAA TGGGGAAATC
39841 TTTTGTAGGA AATGAACAGA GAAGGCTAAA ATCAAGGAGT TCGTCAGGCA ATTTCTATGT
39901 TTAGGTTCAA CTCTCTCCTG AAACATGAAG AGCTCATAAA TGCACCTCCT GTTTGAGTCT
39961 CTAGTTTTGT CTCCTTCCCA CAGTGAGTCT GCAGGCTGCG TGTCACCTAC GTTCACTAA
40021 GACGTAGTGC CCCATGGCTC CTCCTGTGGA GACAAGAGAC CCAGGAAAGA GGCATCACAA
40081 ACCTAGGCAC CATCTTGCCCT CTTCTCTCTT CTTATTTTTC CTCATTCACC CATCTCAATT
40141 TAGACCTGGG CACTATTGGA TTTCAAGAAC CATTATCTCT CATCTGGAAA TGCTTATTGG
40201 CTTTCTAACT GGTCTCCTCA CCTCTCATCT AACTTCTTAA CAACACATTC ACCATATAAG
40261 GGAGATCGTG GTCCTCCTTT CTTAGGATCC TTCAATGACA CCCCAGTGAT CATAACCCAA
40321 TATCCCAAAA GACCCTTGA CTCTGTATGA GCTGGCTTCT TTCTGATTCT CTTTTCCCTA
40381 CACCACAGAT GTTCAGGGGG TAGAAATGCA TAATTGGTGA GTGATAGCTA CGCAAACCTA
40441 GGGTTAAGGT ACAGTAATTA TTTCTAATCT CCCAGTATGC CTTATACTCT CTTACTTGGC
40501 ATGGTTGCTC CGTCTGTGTA GACCTCCCAT CATCTTCAAC CTCACCTAAT GGAATCCAGC
40561 TTCTCCTTCA AGATCCAGAA GGCTATCTTG ATCCCCAGCT GAATGTGATC ATTCCTTCCCT
40621 TTGACACCCT AAGCATTTGC TTCCTGCCTG CTTTAGGACC TCATGGGGTC TTCTTTAACT
40681 ACATTTACTT GCTATCAATT TCATTCCCTA CCAGATTTGG GTTCTGAGAA TAGCCACAGT
40741 GACTTCTCAA CCTCAAAGCC CCTGTACTAC CTTAAACAGC TCTTGCAAAA TAGTAGGTGC
40801 TCTGAAGATG TTTGTTGAAT TAGAGACTTT CATTCTGGGG AGAACCATTA TTTTCTGTCT
40861 CCCAGGGAGC TGCTGGTGTC CCCAAAGAAT ATAAATGAGA AAAATGCTTC CCATGGATGC
40921 CAGATCCCCCT CTGCCCCCTCT TCCCCTGTG CCCTGGGGCA GAGGTACTAA GAGACTTCCC
40981 CCTTGTTTCT ACTCACTTGA ACCCTGCCTC TTCCTTAATA TTATGAACAA AATTCCAATG
41041 AACAGATGA CGACAAAAC AGCAATTCCA CTGATGACTC CAATGACTAG GGTGCCAGAC
41101 GGTGAGGGCT CTAAAACAGA AAAAGCAAGT TAAAGCCTTT GATTGCCACC CTCAGCCCAC
41161 CCCCTAACAA AGAGCAGATC CTCATCTCAC TGCCATAATT ACCTCCTCAG GCACTCCTCT
41221 CAACCCCCAA TAGATTTTCT CAGCTCCTGG CTCTCATCAG TCACATACCC CAGATCACAA
41281 TGAGGGGGCTG ATCCAGGCCCT GGGTGCTCCA CCTGGCACGT ATATCTCTGC TCTTCCCCAG
41341 GGGGTACAGC CAAGGTTATC CAGCCCTGGT AGGTCCCATC CCCATTGGGC AATACGTCTT
41401 TAGGTTTCGAA CTCCTTGCCA TCCATTGGCT GCTTATCCTT CAGCCACTTC ATGGTGATGT
41461 TCTGGGGGTA GTAGTTCAAG GCCCGACACC GTAGAGTGGT CACTGAAGAG GTCACATGAT
41521 GTGTCACCTT CACCAAAGGA GGCACCTGAC AGGAAAGAGG AAGGATGAGG AGAGGGGATC
41581 TGTTTACCCCT TGCCAGGAAG ACTGGAACTT TCACTTCCTT CTATAGGTTG GAGGAAGGAA
41641 ATACCTTTT CAGAAAAAAA CAAGCTACAG GAGAGACACC ATTTTGTGTC CTAAGATTGG
41701 ACTCTAACAC AGTGTCACCT GGAGAGCAGT CAGATCAGCT TGTTCTCCTC ACATGTAAAT
41761 ATACATATCT GTTACCCATG TTCTTTGTTT TGATAGATAA AATTGCCCTT TATGTGCATT
41821 GAAAATGATT GAATACAGAT GGTCAGTTTC ACCTGGGTCA ACCTAGGAGG CATTGTTATA
41881 AGAAGCGGAC TTGTAAGATA GGTCAGTTCA GTGATTATTG CTATGTTCTA TGAAAGAAAC
41941 TTTTAACCTA AAGGATTCTT CTACTCTGAT AAGTGGCCTC ACTTGATATT TTGTCCTGGT
42001 ATTCATATGA TAGCTGAGAT CTCTGAATTC TCTTTTTTTT TTTTTTTTTT TTTTAAAGAT
42061 GGAGTCTCAC TCTGCTGCCT AGGCTGGAGT GCAGTGGCGC GATCTTGCTC CAGTGCAACT

Figure 8 (Page 13 of 73)

29/162

42121 TCCGCTTCCC AGGTTCAAGC GATGCTCCTG CCTCAGCCTT CCAATTAGCT GGGACTACAG
42181 GTGCGCATGA CTGTGACCAG CTAATTTTTT TATTTTTTTA GAGACGGGT TCACCATGTT
42241 GGTGAGGCTG GTCTCAAACCT CCTGACCTTG TGACCACCCG CCTCGGCCTC CCAAAGTGCT
42301 GGGATTACAG GGGTGAGCCA CCGTGCCCGG CCTTGACATT TCTGAATTTT TAACAGGTAT
42361 AAATATACAA AAGATTATTG GTTAAATAAA AAGCAAGGGC CATAGACACT TCCCTTTGAG
42421 CCATATGCAT GGAGAAAAGA AATTAAACCC ATGACTTGTG GCTGTCTCAT ACATCTCAAT
42481 TATAAGGTAG AGACTCTAGG ATTGAGAAAG TCCCTTCCCA GAATTTGGAG AGGCACACAG
42541 CCTCAGCCAC CTCTGAACT CCAACCAGGG ATTCCGTGCC CTGCAACCTC CTCCACTCTG
42601 CCACTAGAGT ATAGGGGCAG AAGTGTGTTT CCACCATACC TTGTTGGTCC AAAACACCTC
42661 TCCCCAGCTC CAGCAACTGC TGCAGCTGTG CAGGGCAGTC CCTCTCCAGG TAGGCCCTGT
42721 TCTGCCTGGC CCGAATCTTG TGCCTTTCCC ACTCCAGCTT GGTGGGCCAG GCCCTGGGTT
42781 CTGCTGCTCT CCAATCCAGT GTGTGAGGTC AGAATTCAAG GTGGTCTGTC CCATCATACC
42841 CGTACTTCCA GTAGCCCTCG GTACTGTGTG CTTCTTGTCAT TTCACAGCCC AGGATGACCT
42901 GCAGGGTGTG GGA CTCTGGA AAAATCCCCA GCCTTGTTAA CTGCAACCAA AGGAATAGGT
42961 CCCTATTTCC ACCATCCCCA AGGACCAAAT GATCTCAGGA AGCAAATTCC TTCCCTCTTC
43021 CCTGCTCCCA CAAGACCTCA GACTTCCAGC TGTTTCCCTC AAGATGCATG AAAAGATGAA
43081 AAGCTCTGAC AACCTCAGGA AGGTGAGGCC CCCTCTCCAC ATACCCTTGC TGTGGTTGTG
43141 ATTTTCCATA ATAGTCCAGA AGTCAACAGT GAACATGTGA TCCCACCCTT TCAGACTCTG
43201 ACTCAGCTGC AGCCACATCT GGCTTGAAAT TCTACTGGAA ACCCATGGAG TTCGGGGCTC
43261 CACACGGCGA CTCTCATGAT CATAGAACAC GAACAGCTGG TCATCCACGT AGCCCAAAGC
43321 TTCAAACAAG GAAAGACCAA GGTCCTGCTC TGAGGCACCC ATGAAGAGGT AGTGACAGAA
43381 GTGTGAACCT GGAGACAGAG CAACAGGCCCT TAACCATGTG TAGTAGGAGG GGAGCAGGAT
43441 GTTGAGGCTC CACACACCTG CATCAACTCA TACCATCAGC TGTGTCTGGT CCTCATTTTG
43501 TGAAGGGTGA GTTGCACTCC TGTCTTTCTT CCATATGACA GTCCTGGGTG CTCTTTCCCTT
43561 GTGTGCTTTT CTCTGCCACA CGTGGCTGCC ACCCCCTCAC TGCCCCCAGA TCCTATTCCA
43621 ATACTCATGA TTAGACAGAC TCCACTAAAG CTGGTGGATT CTAGAAAATG TTAAGGTGTG
43681 TCTAGCCATG GTAGTTGAAC TCAGGAGTTG GTGCTCAGGG CAAATTAGAC CCAAATCCTG
43741 AGGAATAATT CCTTCAGTTT TTTTTTTTTT TTTTTTTTTT TTTTTTGAGA CAGAGTCTCA
43801 CTCTATCACC CAGGCTGGAG TGCAGTGGA CAATCTCAGC TCACTGCAAC CTGCACCTCC
43861 TGGGTTCAAG GGATTCTCCT ACCTAAGCCT CCTGAAAACC TGGGACTATA GGCCTGCGCC
43921 ACCACACCAG GCTAATTTTT GTATTTTATG TAGACATGGG GTTTCACCAT GTTGGCCAAG
43981 CTTGTCTCAA ACTCCTGACC TCAAATGATC TACCTGCCTC AGCCACCAAA GTGCTGGGAT
44041 TACAGAAGTG AGCCACCGTG CCCAGCCTTG GTCCTGAATT CTTACTACTGA ACTGCCTATG
44101 TGGCCTCACC ACTTGGAAGC CTGACTGGAA TCTCAAACCT AACATGTCCA AATGCAGATC
44161 CTTGATTTAC CCCAAACTGC TCTTTCCTCT GCCTTCACCA TCTCAGAAAT GGCATTGCCA
44221 ATTACCCAC TGCTCAGGCC AATAAAATTA AAATAAAGAA CAAAGTCAAC TTTAACTCTT
44281 CTCTTTTCA GGGGGTCAGG GGAGACAGGG TCTTGCTCTG TCACCTAGGC TGAAGTACAG
44341 TGGCACAGTC ATGGCTCACT GCAGCCTCAA CTTCTGGGC TCAAGCAATA CCTCCACCT
44401 CAGCCTCCCG AGTAGCTAGG ATCAGAGGTG CATGCCACCA CACCCAGCTA ATTTTGTAT
44461 TTTTGTAGA GAAGGGGTTT TGCTGTGTTG CCCAGGCTGG TCTTGAATC CTGAGCTCAG
44521 GAATCTGCTC TCCTTGGCCT CCTCCTTGGC ATGAGCTACT ACACCCAGCC AATTCTTCTC
44581 TTTCTCTCAC ACAACATAGA ATCCTTCAGC AACTTCTTTC AGAATATATT CAGGAGACAA
44641 TGGTTTGTCA CTCCCTTTTC TGTTCCACC CAGCCCACTC CACTACCTCT TGCCTGGACT
44701 GTGTAACAGC TTCCTGGCTG GGCTCCCTGC TTTTACTGTT GCTCCCTTCA TTCTGCTTTC
44761 CACATAGCAG CCAGAGCAAT CTTTTAAAAG CCTGTGACAG ATCACTGTTA CTCCTTGCT
44821 AGAATTCACA CCACAGCCTA CAGGCGCCTG CACAACCTTG TTTGTGGCTC CTCTTCTGAG
44881 CCCATTACCT ACTTCTTGGC CTCTACTCCC CAGCACTACT TGTTTATTTT TTTCAACCCG
44941 AGCTTCTTAA CCAGGAGTTT GTCTACTAGG TGACATGTGG CAAAGTTTAG AGACATTTTT
45001 GGTTGTCAAG ACTGGGGGAG TGCTCCTAGC ACCTAGTGAG TAGGGAGGAC AGGATACTGC
45061 TAGACATCCT ACATGCAGAT GGTAAGTCCC CTTCCACCC CCACGCCGCC CCCCCCCCCC
45121 ACACACACAC ACATGAGTAG TGCTGAGAAA ACCCGCTTTT TAATCCAACCT TGCCAGGCCC
45181 ACTCAGTTTG CTGGGAAAT ACTGCTCCA GTCAATATCA TTCTTATTTT CTTTATGTCT
45241 CTGCTCAAGT GTCAGCCCCA GAGTGACTTG CCCTGACTTC TCTGCTTCTC ACAACACCCA
45301 TGATTTCTCG ATGTTGTATA TCTTCTGCT CATTGCTTA TTGTCATCTC TCCCACTAGA

Figure 8 (Page 14 of 73)

30/162

45361 ATGCAAAATA TCAAAGGGTA AAGACTTGTT TCCCTGCTCT CTCCCTTGGG GCTTGAACAG
45421 TGCAACACAT GGCTGGGACT CATTACACT TGTAACAAT GAATATTCT GCTCAACATG
45481 AAATTTTATT ATTCAACCTC TAATGCAGTG TGATGTTTAA GAATCATAGC TATGAAGTGG
45541 AGACATGAGC TCTGCCACCA AAGCCCAGTG TACCATTGAA TAAATTTGCC AGGAAGCAGG
45601 CCGTGCCATG CCTCATTCTT GTCATGTGTA AAATGTGGAT ACACGTAGTA CCAAACCTCA
45661 AAGTGCTGTG CTGAGGCCGG CGTGTGACCC ACAGAACACT GTGCTACACT ACAGGGCAAA
45721 ATCACTGTCA ACTAAGATTA GAAGCAGCTG TAGTACTTGA AATAACATCA GAAAACCAGA
45781 TTATTTATGT TCTTTGTAAC CTGAAAAGAG TTATATAATC TGAATTCCAG TTAACCTCTA
45841 GTAAATAAAA CGTATTATTA GCTCCTACCT CCCTATGCCT AGTGAAAATC AAATAAGATC
45901 AGATATGAAT GTAACCTAGA AGTGAGTGCA TTGCTTACAT GTTCATTATC AGTACTTTGT
45961 AGAGAGGCCT CTTAATTACA CAGCACATTG CAAATCAATA AAGCCTAGCC GAAAAGAGAA
46021 TTGTTTCACTT CAAACGTTCA AAACCTAACAT ATACTTAATT TTCCAGGCAA AAGAACAATT
46081 GCCAAGAGTG GGGAAAGGCC CGAGGTAGGC CTCTCTCAGG AGCCTCCCAC CCTAGAGACC
46141 TCCACCCCAG GTCTACCAA AAGTGGGTGG AATGGTGAAG AATTCAGATC CCCAACGCCA
46201 CTCTTTTCGCG CCCCCACCGC CCAACGCATT CGTTCTGAGG TGGAAACCCC GTGCGGATCC
46261 TGCTGTGGGT TTGCTCAGCC TTCTCGGCAA GCACTCAGGG AAGAACTTCC TGTTTGGAGA
46321 TGAATGGGGA AAAAAGTGA CAGCTGACAT TGGAAATAAA CCCGAGTTCC AGGTTCAAGG
46381 AGCCCCAGGC TTAGCTCAGC TCAAGTGAGG AACTACGAGA TTTATTTAAA AGCATTCTAG
46441 TTGGGGGAAG GGAGTGGGCG GTTCCAAAAG TCACTCCGCA GAGCCGGGAC AGCCGGGGGA
46501 GGGGGCAGGT CCTGGGGCGA GGGACCCCTA TCTGCAGTTC AGTGGTAGGC ACTCCCTCAC
46561 GGGGTCTGGA CGCAGAAAGT AGGGAGAGGG GCTTGCGGAT AGGGTTGAGC AGGTCTCTCA
46621 AAGTTAGCAA ACTCCCAAGC GCAAAGAAAA AGCTAGTTTC GATTTTTCCTA CCCCCGCCGC
46681 GCCCCTAGTT CGCCCGCAGC CCTCGGACTC ACGCAGCAAG CGCCCCTGCA GGACCGCGGT
46741 CTGCAAAAGC ATCAGGAGGA GAAGCGCCGG CCTGGCTCGC GGGCCCATTT CCCCAGCTCT
46801 GGCCGCACGT CCCCCTTAAA TCTCCGCTTC TTTTGGGGGG CGGGGAAACG GGGATGGCTC
46861 CAGAAATCAC CCTACAGCTA TTGCCTAGGC TCAGGAGATG CCCAGTAAAA CTTCCTGGTG
46921 AAAAGCAACA GGCTTTTCAG AACTTTAGTT CTCTCTCTCC TACAGCAGAA GGTACCTGCT
46981 TGTGAAACAC TAGGTGATCC AGTGTCCTCC TTGGTTTTTA AATCCTGAAG GGGTGTGTGT
47041 GATTGGGGAA AGTAGCTTCG CAATGTTCTG ATCTGAACTT TAGATATTTA AATATTTATG
47101 ATTTTCAAAA TTCAATCATA CATTAAAAA TTTTATCTCA ACCTTAGACC AACTTATGTC
47161 TTATTTGACT TAGAAATATA AAGCTTTTTC ATTTTGTTTT TTGATTCAAA TTAATTAAGT
47221 CATAACATTA ACCAATTAGA TCCTACTGAA ACACCTTCCA CAGCCTTCAT AATTGAATTA
47281 TCTGACAAGT GTTTCACAAA CTTTACAGTA TTGGGATTAT CTGGAGAATG ATTAACATA
47341 TTGAGGCCTG CTCCTAACCC CAGACACACT GATTTAATGG GTAATTGTTA GGTAAGTTAG
47401 CATTAGCAGT TGGGAGGGGA TGACAGAAGA GAGCGGAAAG GCTGTCACTA AGACAGCCAC
47461 TGGCCACCT AAATTCAGGC CCAAGACTAC CCTAATGCCA CCCTAAGGGA TGGAGTTTAT
47521 GATAAAGTCT GTGGCCAAAA TATCCTGGAG AAAGAGAAAG GAGGGTACAG GTGGAAATTC
47581 CCTAAGGTGG CACATGCCCA ACAACACAAA AGCCTGTCTT CAAGTTCACC CCAAGTTCAT
47641 CATGCCATCA TTATAATAGA ATTTACATAC AGTTTTGCCC CCCCATCCCT GGGAGGCTTT
47701 TCTTAACAAA TTATAGGTAA GACCATGCAC AGTTTAATTT TAGATTGTAT AGCTATACAC
47761 TTCAATCAAA TAACATCATC CTGTCACTCA GATACAGCCC AAACCTCAAC TCCCTCCAC
47821 AAACCCCAT AAGCACCTT GAGCTCTGTA AAGAAGTGCT GAGTTCACTT CGCAGAAATA
47881 AGCCCGCTGT CCCTCAGAGT GTATTATTGT GCTTCAATAA ACTTTGCTTT AAGCTTGCAT
47941 TTTGGTGTTA GTTTGTAGTT CTTTGCTCAC TATCACAAGA ACTGAGATTG CTGGTTTCTA
48001 GCTCCGGCTA TAATAATCTC CTCGGTTAAA GGATCCATCC CAATGCATAA TTCCAGTAA
48061 CAGTATGGGA TGCCACCTGG GCAATGGGAT TTTAAAAGCT TTCCTTCTCC CTCAACGAAG
48121 TTTGGGAATT ATTGCCTTAG ACATTTCAAA CAATATTAAT AAATTTAATA CACCTGATTT
48181 GCTCCAAACC TTTACATATC TAGCAAATTC AACAGGCATT ATTTTGTAA GCATGTATGC
48241 AAATTTTGGC AATTCAAGAA AATCAAACAG GATATCAGGG CCTCGACTGT AGGCAAACAG
48301 ATACAATAAC ATTGGAAACA TGTAAGATAT TGATGATGGG CACATTGGGG CTGATAGTAC
48361 TATTCCTTTT TTTCAATTTT TGGTAAGATA TAATTAGCAT ACCATATAAT TCATCTATGT
48421 AAAATGCAAA AATTGGCCCG GCTCAGTGGC TCACGCTTGT AATCCAGCA CTTTGGGCGG
48481 CCGAGGAAGG CAGATCACCT GAGATCAGGG GTTCGAGACC AGCCTGGCCA ACATGGTGAA
48541 ACCCCGTCTT TACTAAAAAT ACAAAAATTA GCCGGGCGTG ATAGCAGGCA ACTGTAATCC

Figure 8 (Page 15 of 73)

31/162

```

48601 CAGCTACATT AGAGGCTGAG GCAGGAGAAT CGCTTGAACC CGGGAGGCGT AGGTTGCAGT
48661 GAGCTAAGAT CGTGCCATCA CACTCCAGCA TGGGAGACAA GAGCAAGACT TCATCTCAA
48721 AAAAAAAAAAT TAGCTGGGTG TGGTGGCATG CACCTGTAAT TCCAGCTACT CGGGAAGCTG
48781 AGACAGGAGA ATCGCTTGAA CCTGGGAGGC GGAGGTTGTG GTGAGCCGAG ATCATGCCAT
48841 TGCACTCCAG CCTGGGCAAC AAGAGCGAAA CTCCGTCTCA AAAATAAAAT AAATAAAATA
48901 AAATGCAAAA ATTAATGGAT TTTAGTATAT TTACAGAGAT GTGCAACCAT TACCAAAATT
48961 TTACATTTCT ATCTCCCCAA AAAGAAACCA TGTTCCTCTA ATTCAGTACC CTTAATTCAT
49021 CGCCTCCCAG ATTCCTCCAT TCTCCTCCTC CTCCCCTCCC AGCCCTAGAC AATCTTTAAT
49081 CTACTTTCTT TCTATTTGGA ACATTTAGTA TACATAGAGG CATATAATAT ATTGCTTTGC
49141 CGTGA CTGGC TTCTTTTCATT TAGCATAATG TTTTATATGTA TGTTTTTCAT GGACCAATAA
49201 TATCTATTAT AAGGACATAC CACAACATAT TTTATTTATT CATTTCATCAG CCGATGGACA
49261 TTGGTTTGTT TCTACTTTAT GGCTATTGGG AATAGTGCTG TTATAAACAT TTATGTACAA
49321 GTTTTTTTGT AGACTTATGT TTTGATTTCT TTTGGTTATA TATCTAGAAG TGGGTTTGCT
49381 GGGTCATATG GTAACACTGT TTAACCTTTT GAGGAATTGC CACATTCTTT TCCAAAGTAA
49441 GCATTTTATC CTCCTATCAG CAGTGATACG GAGTTCTGAT TTCTCTCCAT CTTTGCCCTGG
49501 GTTTTTGAAT CAGGGCCCCA GATAGAACAA AAATGTGGTT ATTCAGTTGT TCCACCATCA
49561 CTTGTTGAGA AGACTCTTTT TTCATTGAAG TGTTTTGGCA CCCTTATCAA AAATCAATCT
49621 ACCATAAATG TGAGAGTTTA TTTCTGGAGT CTCAAATTTA TCCCATTTA CTATAATCTA
49681 TAATCCTATC TTTTTTTTTT TTTGACAGAG CCTCACTCTA TTGCCCAGGT TGGCTCAGCC
49741 TGGCCCAATC CCGGCCACTG GCTCCTCCTC CCAGGTTCAA GCAATTCCTC TGCCTCAGCC
49801 TCCCAAGCAG CTGGGATTAC AGGTACCTGC CACCATGCCT GGTTAATTTT TGTATTTTTA
49861 GTAGAGACGG GGTTCACCA TGTGGTCAG GCTGGTCTGG AACTCCTGAC CTCAGGTGAT
49921 CTGCCCACCT CAGCCTCCCA AAGTGCTGGG ATTACAGGCA TGAGCCACCA CACCAGACT
49981 ATAATCCTAT CTTTATGTCA GGACTACACT GTCTTGATTA CTATAGCTTT TTAGTAAATT
50041 GAATTCAGA AGTTTCTCAA CTTCAAATTT GATCTTTTTT TGGAAAGACTA TATTAGCTAT
50101 TCTCAGTCTG CTGAATTTCC CTAGGAATTT TAGGATCTAT TATCAATGTC TATTCTATTT
50161 TTGTATATGT TTTAATATTT TCATAAGAAA CTTTTTTCAT TTAAACTTTT TTTTTTAAGA
50221 AAAATAGTGA AAATCAGAAC ACTGGGGGTC AGGCGCATTT AACAGGCAGA AGAAGAATAA
50281 AAATCTGTCA TATAAACAAA AAAGAAATGA CCAATCACAT TGTGGAAGCC ATGGAGTGGT
50341 TATAGGTGCC AAAGGCTGCA GAGAAATGGT GTCAGATATA CCTGAAAATT GTCCATTGTA
50401 TTTGGCCATT AAGAGACTTA GAAGACTTAA GCCATAGATT GCTCAGTGAG ACCCCGAGGG
50461 CAAATGGTCT GAAGGTGAAT AGATCATTTT ACCTTTAAGA GAGCAGGTAG GAAGCTATAA
50521 ATCCAAGATT AAAAAGTTGA CTGAACTGTT AAGGAAGAAA CTCTAATCTT GAGCCACCCT
50581 ATCCTGGCTC CACCTTCTGC TGCAAGCAAA CAGAAATGCT GAAATTCAAC ACTCACAAG
50641 GCTGGTAAGC TGGAAATGAC AAAAATTACT CCTGGGAAAG TCAGATTTAG AATTAGGCCA
50701 TATTTGTGG GGTTCAGATT TTCATGTACA CTGGGAAAG GGTTTAGCTT ATAGGCACAT
50761 GCATGAAGGG AACTGGTATA GGGCTGTGTT CATAAGGTCA AGAGTTGAAG GCCAGGCATG
50821 GAGGCTCTTG CCGTAATCC CAGCACTTTG GGAGGCCGAG GCAGGAGGAT GGCTTGAGCC
50881 CAGGAATTCA AGACCAGCCT GGGAAACATA GGGAGATGCT GTCTTCACAA AACAATTAAA
50941 AAATAAAATT AGTCAGGTGT GGTGGCACAC ACTTGTGGTC CCAGCCACTC AGGAGGTTGG
51001 GAAGATCACT TAAGCCTGGG ACATTGAGGC TGTAGTCAGC CATGATAGTG CTACTGCACA
51061 CCAGTCTAGG TGACAGAATG AGACCCTGTC TCCAAAAAAA GAGCTGTATC CACATCCCAG
51121 GAAAGTGGTT GAAGATCTAC TTTTCTCTGT AAACCTAATA AAGAATAGAG TGACAAATGT
51181 GTGTTGTGGA AAGAAATGGG GTGAGAGCTA CGTAGATGCA AAACAATACA TCCCCACATA
51241 CCACTTGTTA ATCATCCTTT TCCACCCACT TATGGGATGA ATTGCATCTC CCAAAAAGAT
51301 ACTCTGTCC T AACCCTCAGT AGCTGTGAAC CTGACCTTAT CTGGAATACG GTGAGTTCAC
51361 TGGTTAAGAA GAGATTATAG TGGAATAGGG TGAGTCCTCC AACCAATGAC TGGGGTCCCTC
51421 ACAGACACAG AGGGATGATG GCCAGGTAGA GATGGAGGCA GAGATTGGAG TTATGCTGCC
51481 ACAAACCAA CACAGGAAGC TGCTAGAAGT GGAAACAGGC AAGAAAGAAT CCTTCCCCAG
51541 AGGCTACAGA GGGATCTTGG CCCTGATAAT ACCTTGATCT CAACTGGCCT ACGTAACTGT
51601 GAGAGAATAA ATTTCTTTTG TTCTAAGCCA CCCAGTTGAT AGTACTTTGT TACGGCAGCC
51661 CTAAGGAAC T GATATACAT TTCTTTTACT GTCATAGAAG TTTTGAATCT TTTAAGTAGG
51721 TCTGTACCT T CCTCCAGT GTCAACACAT GGAATTCCTC TCCTTGTGCC TTGAAAAGTG
51781 AAAGGTGTTT GAACTGGTAA TGAAAGAAAT CTCAGCATGA GGCCAGATGC TGTACCTCAC

```

Figure 8 (Page 16 of 73)

32/162

```

51841 ACCTGTAATC TCAGCACTTC GGGAGGATGA GGC GGCGGCAGA TCACTTGAGG TCAGGAGTTC
51901 TAGACTACTC TGGCCAACAT GGTGAAACCC CATCTCTACT AAAAACAAAA AATGTTATCC
51961 TAGCCGGGCA TGGTGCCTGT AGTCCCAGCT ACTCAGGAGG CTGAGGCAGG AGAATTGCTT
52021 GAACCCGGGA GGTGGAGGTT GCAGTGAAC T GAGATCACGC CACTGCACTC TAGCCTTGGT
52081 GAGAGAGCAA GACTTGGTCT TAAAAAAGAG AAAAGAAAAA TGAAATTTCA GCATTATAGA
52141 ATAAAAATGT TTCCCTTCC CCCCAACTT TAAAAAAGCA GAAGTCTGCA TCATAAAATG
52201 GTCTTTGCCA ATGTTATTTT TATTATAACA AAGGAATCTT GCAAGGCTAC CAGATCTCAG
52261 CAATTGTCAC TATGTTCTGT AAAAATCACT TCCTAAAATG TCTGAATTGA CTGCTTGTCT
52321 CATTTATTTG TTTCTCGTGT CATACTGCAA TGGATATCTG TCTTGTTAGT ATAAATATTT
52381 GTGCATTTTG TTGTTGTTAA AACAGCTTTT TTGGCCTGTC TTCTTCCACC TATGAGGTAA
52441 TATAAACTC ATGTTTAAACA CTTATTTTGG TAGCAGGACA AGCTACAGAC AAAACCCCTC
52501 AGACACTGAG TTAAAGAAGG AAGGGCTTTA TTCAGCTGGG AGCTTTGGCA AGACTCACAT
52561 CTCCAAAAAC CGAGCTCCCT GAGTGAGCAA TTCTGTCCC TTTTAAGGGC TTGCAACTCT
52621 AAGGGGGTCT GTGTGAGAGG GTCATGATCG ACTGAGCAAG TGGGGGTATG TGACTGGCAG
52681 CTGCATGCAC CAGTAATCAG AACAGAACAG GGATTTTCAC AGTGTTTTTC CACACAATGT
52741 CTGGAATCTA TAGATAACAT AACC GGTTAG GTCGGGGGTC AATCTTTAAC CAGACCCAGG
52801 GTGCAACACC AGGCTGTCTG CCTGTGGATT TCATTTCTGC CTTT TAGCTT TTACTTTTTC
52861 TTTCTTTGGA GGCAGAAATT GGCATAAGA CAATATGAGG GGTGGTCGCC TCACTTATTC
52921 ACCCCCTTTG AGAATCTCAC TCATTAGTGG GAGTTCTCAC TTTTATTCTC ACTACCTATG
52981 TCTTCTTGAA AGACAGATTG ATAATGATTC ATATAGTACA CTTGTGCTGA AGCATTTTGG
53041 TGAGCTAAGG TAGTGATGAA GCTTTTTATC ATTTGGAGAA GTACAGGTAG CAAACAAGGA
53101 AGCAGTAAGC AGGTTTCTAT TAATATTATA ACTCCTATTA TAAGAGTTTT AAATCTTCTT
53161 AGCACTCGGA ACCATTTTTC AAACATGGCC CCAGAAACAA ATCCATACCA CACCTACATG
53221 GGCACATGTG CCACTTTTGT CATATTTCTA ACTATGTCTT CAACTACTTG CCCTTAATCA
53281 TCTATGTGTA GACAGCAATT AGTAAGGTTA AATTTCTTAC AGACCCCTCC TTCAGTTGCT
53341 AGCAAGTAGT CGAGAGCCAA TCCATTTTGA TAGATAGCAT TTTGCATCTG AGTTTCTTGC
53401 CAGGCCACAG TAGTCAGGGC TCTGCTGGTC TTATTAGTAA TTATTTCTAA GACAGCTTGT
53461 AACCGTATGA TTCAGTTGAG CATGTAAATG GGGGTCCCAT ATCCCCACAA GCCGTCTTGT
53521 GCCCAAGTAG CAGGCCATA ATATTGTATG ATTCTCTCAG GGGGCCATT CATTATTTTTC
53581 CAATTTTCTA TAGCTATGCT TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT TTTTTTGC GG
53641 GAAGCATATA CAGGGAAGCC CAGGAGTTTG CCTGTCTTTA TGGGCAGTAG GAAGAAAGAT
53701 GGTTTAGTAG TGTCATAAAC ACAACTACCT GCCCACTGGT CAGGTAATTT GGCATAAGCT
53761 GTATGCCCAC ATATCCAGTA TAATCCAGTG GGGGCTGTCC AGTCCCGGTG GGA CTCTGGG
53821 TGGGTCCACA CAGTTTGCAA CTTTGGGAAT TACTAAATA GATTTTCTT AGTGTGGTTT
53881 GAACTCCACT AGGTGGCTGT TTTTATAGTA CTATTATACA GTTTTGGCCC AAGGCAGCTG
53941 AGTCTTCCCA CAGGAAGGGT GAAGTCCTTC CCCACTTTTG CTATACAGTA TTGTCTAATG
54001 ATTGAGGCTT TTAGGACCCA GAAGTTATCA GGGTGAGTCT TTTGAGCTGG GAATTTATCA
54061 GGAAGTGGGT CTGTAGGTAC TAATTCTCGT GCTTCCCATG GCCATTGATC TCCCATTACA
54121 GTTCTCCAC ATACATACAT AACATGAAGT GACATTGAGA GACTGGGCTA CATGCTCAGC
54181 TAATTGCAAA AACAAATTTT TTGTTTTTCC TGGAATTTCT AGTACTGGCA CATTCAAGTTC
54241 ATCATAAGAA GGTTTGAAAT ACTGGCTCAG GGGAGCATTT ATAAACTTCT CCTCAAACCA
54301 CCATATTTAC TCAAGGATCC AGTCCAGCCC CAACTATTTT TAAGGTTACA CGATCCCTT
54361 TTTTCCAGTG AGAATCAAGG GGGTTGGTTA TTACTAGTTC TAAGGGGTTA CACTGACCAC
54421 TGGTACAGGA AGGGCCACTT TTCCCTTTCT GAAGGTGGAC AGGATTCTTT TTATTTTTTA
54481 ACCAAGTTGC CTAAATGACA CAAGACCAGT ATCTACATTT ATTTCCACGC AGTCTTAATT
54541 CATGACAAGC GACTTATTT TCTGCCATAT AGCCTCTTTC CTAATGAACA GAACCACATC
54601 CTATTTCTAA CTTATTACTA TTAATGACAG CACAGGCATC AAATTTCAAG GTGACTTGTT
54661 TGGGCATTCC TTTTCTTCT GTTTTGGCTA ACACTTTACT CGTATCGTTT ATGAACCCCC
54721 ACCAGTCCTC AGTCCTCAAT CTTATTTCAA AAAGTGTGGT CGTGGGAGGC TCAGATGGGT
54781 CATAACACAC ATCAGGTTGG TCATTTCTTG GGCTACCTAC CTTGTATAGA ATAGCATTAT
54841 ACAAACAAGT TATTTT TAGA GTCTTTGTAC ACTTATAATA ACCATAAAAT AATAAGACTG
54901 TAGCAACTTT TTGTCCTACC TCAGTGACTT GATGTATACA CTGGGAACAG CCCTCAGTCT
54961 GAGGAAGGTT AGTTGAAGTC TTTACTGTGC AAGTCCAAAT TTTAAGGAAA ATGAGTCCCT
55021 TGATGAGTTT TCTCATGTTT CGGCCATGCA TGGACCAGTC AGCTTCCGGG TGTGACTGGA

```

Figure 8 (Page 17 of 73)

33/162

```

55081 GCAGGGCCTTG TTGTCTTCTT CAGTCACTTT GCAGGCGTTG GCGAAGCTGC CACGTACAGC
55141 TCACAGTCTA CTGATGTTCA AGGATGGTCT TGGAAAGTTG GCCCACTAGA ATTAAC TGAG
55201 TCCAATACCT CTA CTACAGTC ACTTTCAACT GGGCTTTCTG ATACCAGGAG CAAGGTGGCA
55261 GGTTTTAGGG TGTTGCAAAT TTCAATGGTT ATGCAGGGAT TTTCACATAG CAAACTTTGG
55321 TACTTGTTTA ATCTAGCATT TGTTAGCCAA TGATGTATTT ATTAAAGTCA CCACAGCATG
55381 GAGGGCCTTT AAGTTTAGGT TTTGTCCAAG AGTTAGCTTA TCTGCCCTCTT GTGCTAGCAG
55441 GGCTGTTGCT GCCAAGGCTC TTAAGCATGG AGGCCAACCC TTAGAAACTC CATCTAGTTG
55501 TTTGGAGGCC CAGCCTCGGC CAGGGCCCCA CAGTCTGGGT CAAAACCTCA ACCGCCATTT
55561 TTTCTCTTTC TGACACATAG AGTGTAAGG GTTTTGTCAG GTCAGGTAGC CCCAGGGCTG
55621 GGGCCGACAT GAGTTTTTCT TTTAACTCAT GAAAACTCA TTGCTGTTGG TTGTAATAGA
55681 TGATAGTTTAT CCAATCTACA TTTTATTAAT CTGTCACCCA CAAAATATT GACTCAAATC
55741 CTGCAGCTAT TTGATTTTGG GATTTAAATT GATCTGCTAT TCCCTGTGGG ACTCCAATTG
55801 CATCTAAATA GATGTGAGAG TTGAAAGACA CATAAGGGTC TTCTCTTGCT TTACGATGTC
55861 TTATTTTTTCC TCCCTCTGGT TGATGAAATG CTAGGGTGAA AGGGATAGCC AATTGGACTA
55921 AAGTACAAGT GCCGCTCCAG TTATTTGGCA GAGTGCCCAG TAAAGGTCCA CCACAATACC
55981 ACCACACATC CGCTTGCGGA TGAACAAAGG CTGACTGATT GAGAAGCTCC TGAAAATTCT
56041 TAAGCTCACT GCATCCCTTC AGGTCTCCAA GGAATGCTAA GTTTCCTCCC TGTCATGAGA
56101 GACAAGAAGT GAACCTTAGT TTGGGAGATG GAAGCTGGAT GGCCCTCAGG GGTTGACCTG
56161 CAGGGTGCTG GACTTTGGGA TATAGCAGAG AGAGCTTGGC ACGACTTATT ACTCCAGGCT
56221 GTAGAATCCT GGAAAACAGT TACCATGCAG CCCATGCCTG GTCAACAGGA GGACCACCTT
56281 AGTGGAAGG GGATAATCTG GCCCTCTGGC CTGCCATGTG CACAAGCATA ACAATTGGTT
56341 TTGTTTAATG TGTGGACAGA ATATTTGATC CATTCCAAC TGGCATTTGC ATCTTGGTAT
56401 CCTGCTTAAT TATCAAAGTT TGTTTAAAGT CTTTAACTTC TATGACCTC TAGTAAAATG
56461 AATGTATGAT TTTAGGAAAT TACAAAAACC GGTTGGGGCA GTCCATCCTT GCTCTTTAGT
56521 GGTCCACACA ACATTCGACC AACTATGGCA TAAAAGCTCT ACATCGGGGG GCAAGACTCC
56581 TCGTTGACAC TGGGGTCTTT ATTGAAATCT CTCTGGAATA AATGGTCTCA GTTTACTAAG
56641 GCTCAGTCTG AGGAGAGTCA GGAGGGACAG AGGTACTTTT CTGAAGTACA GAGATGTCTT
56701 CGACTTGGCA AGTCCCCACA GGGTATAACA AGGCAAGCAT TAAATTCAT AGTTTGAGGC
56761 AAAATTGACT TGGTTATGTT AATAACTAGA TGGTCAGAAA TAGAGTGAGG GAAGAAGAAA
56821 GAGTAATAGA ATAGATGAAG GAGTTAAATT TTTCTTAGCT TTAGTTTGGT AGGGTTTTCC
56881 CCTGGGACTA TGGCCCATGA CTCTGGAGGG GGTGGCACTT TCTTGACTCG GGTGTGATGA
56941 GTCCATCCCT TTTTCACCGT ATGAACAACA GTCTCGGTGG TTAGCAGCAC AAGGTAGGGT
57001 CCTTCCTAGG CTGGCTCAAG TTTTCCTTCT TTCCACCCTT TGATGAGAAC ATGATCTTCA
57061 GGCTGGTGCT GGTTTACAGA AAATTCTAGG GGTGGTACAT GTGCTAAAAG ACTTTTAGTT
57121 TTGAGGGAAA GGAAAGTGGA AGATAAACCA AGTATATAAC TTTTAAGAAG TTGACCTTTT
57181 GTTTTAAATG TGGGGACATC AGCAGTGGAC TTTATAGTCC TTGGTGCCTT CTTACTGAGA
57241 AATTTCCCTT AGCACCTATT TTTATTAGTT TTTAGACCAA AGAAAGTCAA ATGCCATTTT
57301 ATATTTGACA ACGCTTCTTG TATGTTTATA CCAGATAAGC TAGATTTTAC CTTTATATTG
57361 GTGTGTTATT AATGTTAAAC TTAGTTTTTA TAAAACCTCT TAGACATATT TATTTGATTT
57421 TTAATGTCTG ACCATAAGGT AAGATTTTTA TAGACTTTTC TTTAACCTTT TATAATTTTT
57481 GTTAAAGAAC AGGTTAGTGC TTTAAGAAAA ACCCGTTGTG TTTTATTTT AATGTTTCACT
57541 TCACAGAAAA ACTGTATGAT ACCCCTTAAC TTTAGCCAAT ATGTTTATGAC ACAGAATTTT
57601 CTTTACAATT AAGGTTTCAA AACTTGCTTA AACCTTCAA ACAATTTTTT TAACCTTTTA
57661 ATGTAGGTAA AAATCCACAT TCTTATGCAT CCTCATAATC CTTTACCAA AGGTATATTT
57721 TACTTTCCTT ACATACCTTG CACATAAACT GTTTATTCAA TAGTTTTACA TTTAGAAGGA
57781 GGCCTAATTA CTTTAAAT ATACAACATT TCTTACATAA ATTTATTTTT CTAACACACA
57841 TTTTTTTCAT GACTTTCACA GACAATTCTT CGACATGCCT CAACTTCTG ACTTATTGCA
57901 AACATCCCTT TCTTTAAACA ACTAGTTAAT TTATCTCAGG ACAAGGATTT TCCATACAAC
57961 ATTCTTTTTT ATATAAATTC TGCCCTCCTT TTATTTCTT TTTTTTTTTT CCGAGGATGA
58021 TAACCATTCT TTTCCAAAGC GAACTTCTTT TATGTCTGTG GACTAGACTG TCTAAGGCCA
58081 CAAGATTAGA AGTTACTATA ATACATGTTA CACTGTTAAC TTTTAGCAAA CTTTACTTTT
58141 GTTGAAGAAC TTGTAAGTTT GGGATTTCAA TTATCCTTTG CTATTAATAA GACCTTATTT
58201 AGTCCAAATT AACTTAGAAT TGGTATAGAT GGCTTTTTTT TTTTTTTAAT TACCTGGGAG
58261 GAACCATCTA TCCTCCTGTC CTGAAGGGAG TTCTCCTAG GTCTGGTCAG AGCTTTGTAT

```

Figure 8 (Page 18 of 73)

34/162

```

58321  GGTAATTAAG  ATTTAGATCC  CCTGTTAGGA  AACCTGCCGG  GTTAAGAGAA  TTTTCAGTGG
58381  TTAATGTAA  ATCATCTTCT  TTTTCTTTT  TTCCTTAGGA  TACTTCTGAA  CCGGTGAGGT
58441  GTGCTCACAA  TGAGGTTTCC  TGTAAGAGTT  ATTTTTTTAC  TTTCTTCTGT  TAGCAAAGCA
58501  GTTGCCGCTA  CAGATTGAAT  GCATTGGGCG  CATCCGCGGG  TTACTGGGTT  AAGGATTTTT
58561  GATAGGAAGG  CCTTAATGCT  TTTGGAATAT  GCCCTGACAA  CAAAGTGCCA  GTTCCTTCCC
58621  GGTGTTGAGC  CACTGCGTTG  ATCCTCCACG  AGGGCCTGCC  ACGTGCTGCT  CTGGTGAGGC
58681  GTTCCACCGG  GGCAATTGCC  TACCTGGGAG  CGCTCTCCAG  ATCTGTGTCG  CTCAAAGTGG
58741  CTGGAGTTCC  CCGTAGGGAT  GCTCCACAGG  GCAGGCCTAA  GTCGCCTAAG  GGGCTGCCTT
58801  GACCGTCCGT  TAATCACCTC  TGTCTCCAAA  AACCAGCTCC  CTGAGTGAGC  AATTCCTGTC
58861  CCTTTTAAGG  GCTTACAAC  CTAAGGGGGT  CTGCATGAGA  GGGTCGTGAT  TGATTGAGCA
58921  AGCAGCGGGT  ACGTGACTGG  GGCTGCATGC  ATCAGTAATC  AGAACAGAAC  AGAACAGCAC
58981  AGGGATTTTC  ACAATGCTTT  TCCATAACA  GCTGTGAATC  TATAGATAAC  ATAACCTGTT
59041  AGGTCAAAGG  TCGATCTTTA  ACCAGACCCA  GGGTGCGGTG  CCGGGCTGTT  TGCCTGTGGA
59101  TTTCAATTCT  CCCTTTTAAT  TTTTACTTTT  TCTTTCTTTG  GAGGCAGAAA  TTGGGCATAA
59161  GACAAATATGA  GGGGTGGTCT  CCTCCCTTAA  TTTAAACAAA  ATTTTCAAAG  TCCTACCCCA
59221  AGTAAATTGG  CAAATATTAA  TAAAGTTATG  GCATAGAAAA  TAAAAATGAT  TGTAAAAGGC
59281  GTAAAGATAT  TTCTGTGGGG  AAAACATTTG  TTCATTAGTT  ATCAGTTAAA  ATTCTGTGAA
59341  AAATAACCAC  TAGAGACCTT  AAAGTACCCA  GGGGCTAATA  ATAAGAAGGG  AGGAACACCC
59401  TCTCACTCCC  CACCGTTACC  TGCCCAAGAG  GGAAGAGGAA  GAGGGTGACT  CCAGGAGAGC
59461  TGTGGTCTCC  CCTCCCCATA  TGTCCACATA  TACCTGACCT  CCCCTCCCCA  AAATATATAC
59521  CCAATATCTC  TCCCATATAT  ACATATTTAT  CTGACCTCTC  CACATATGTA  TACCTAAACT
59581  TTCTCTATAT  ATCCACATAT  ACCTAACCTT  CTCACACACA  TATAGCTGAC  CTCCAGTGGA
59641  GGAAAATGGG  GAAGAGAGAA  GAAGTTATCA  AAGGATAAAT  CTAGGTCATA  CTCAGAAATG
59701  TGAAAAACAA  AAACCACACA  CAGAAAAAAA  AAACACACAC  AAAAAAGAAA  TTGATAAATT
59761  TGTTTGTGTC  AAAATTAAGA  ATTCCGGTTC  AATGAAGGAT  CCCATGGATA  AAGTTAAGAC
59821  ACTGCTGTAA  GGATGGTAGA  GAATTAATG  TCTGAATCAG  ACGAAAGGAT  GAGTAATTAG
59881  AATGCACAAG  GCCAAGAAGA  ACAAACAGA  AACTCCACAT  AAAAAATGTA  TGAGGCCGGG
59941  CGCGGTGGCT  CATGCCAGTA  ATCCAGCGC  TTTGGGAGGC  CAGGGCGGGC  CGATCAGGAG
60001  TTTGAGACCA  GGCTGGCCAA  CATTGTGAAA  CCCCATCTCT  ACAAAAAATA  CAAAAATTA
60061  GCCGGGCGTG  GTGGTGGGTG  CCTATAATCC  CAGCTACTTG  GGAGGCTGAG  GCAGGAGAAT
60121  CACTTAAACT  CAGGAGGCAG  AGGTTGCAGT  GAGCTGAGAT  CACACCATTG  CACTCCAGCC
60181  TGGGTGACAG  TGTGAGACTC  TGTCTCAAAA  AAAAAAAAAA  TTATATATAT  ATATATATAT
60241  ATATATATAT  ATATATATAT  ATATGAAATA  AATGAACAAG  AAATTTAGAT  ACAGGAAAT
60301  CCAAAGCACT  TGGTAATGAA  AGAAAGGTAA  AGTGATGTGT  CCTTTTGCAT  TTAAAAGAGA
60361  GCATTAACAA  ATTAGAGAGC  TGAATAATGC  TCAGTATTGG  TGTGGATATG  GAGACTCAGG
60421  AATCCTCATA  CACTGCTGAT  GGGAGTGCCC  ACTCCCTGGG  AATATTTTCC  AAATATCATC
60481  TCAACATAT  CCCATAAAGG  TGACAGGAAA  GTGTGGGCTG  ACTGATATCC  TTCCTGAGA
60541  GAGGTGGAGG  TAAAATGAAG  TCACTGCACA  ATATAGAGTT  GGAAGCAATG  GATTAGATGT
60601  CCACATAGTT  ACGTGGAAGA  ATCCGTAAGA  TACACACACA  CACACACACA  CACACACACC
60661  TTTGTGTATA  TTGTTCTTGG  CAGGTAGGCA  TGGAGGTTTA  GAGGCTTTCT  ACATCACACC
60721  TACTGCACAC  AGTAAATGGC  CAGGCTGAGC  ACTGACTTCC  ATGAAGGGAG  ATTGAAGGTA
60781  AGAGATTGAA  GATTGTTCCC  TGGTCTGGGA  CCCTGCAACT  GAATATGCAG  AAAAAAGTAC
60841  ACCCCGCCAC  CCCGCTTCCC  ATCTTTCCTA  CCTGATTAGA  ATAGCTTTTT  CAGAAAACGT
60901  TGGCCAGGGG  TTGTGGCTCA  CACCTGTAAT  CCCAGCACTT  TGGGAGGCTG  AGGCGGGCAG
60961  ATCATCTGAG  GTCAGAAGTT  CCAGACCAGC  CTGGCCAAAC  TGGCGAAACC  CCATCTCTAC
61021  TAAAAATATA  AAAAATTAGC  AGGGCATGGT  GGCACACACC  GTTCATCCCA  GCTACTCGGG
61081  AGCCTGAGGC  AGGAGACTCA  CTGGAAGCAC  AGTGATGGAG  GTTGAAGTTA  GCTGAGATCT
61141  TGCCACTGCA  CTCCAGCCTG  GGCAACAGAG  TGACACTTTG  TCTCAACAAC  AACAACAAAA
61201  CCCACCAAAA  CTTTAAATCT  ACCTATGGCC  AAATGCCTGC  TAAAATGAGC  ACCCAAGAAG
61261  CAGTGTTTCA  GAAAGTCAGA  TGAATACCTT  AAAATTAGAT  GCAATGTTGG  CTGGTCACAG
61321  TGGCTCAGGC  CCTGTAATCC  CAATCCTTCT  TGGGAGGCCG  AGGCGACAGA  TCGCTTAAGC
61381  TCAGGAGATC  GAGACCAGTC  TGGACAACAT  GGTGAGACCG  TGTCTCTACA  AAAACGTACA
61441  AAAATGAGCT  GGGAGTGGTG  GCGCGCACCT  GTAGTCCCAG  CTACTCAGGA  AGCTGAGGTG
61501  GGAGGATCTC  TTGAACCCAG  AAGGCGGAGA  CTGCAGTGAG  CAGAGATCAT  GCCACTACAC

```

Figure 8 (Page 19 of 73)

35/162

61561 CCCAGCCTGG ATGATAGAGC CAGACCCCCA TCTCCAGAAA AAAAAAATAA AGAGAGAGAG
61621 AGATGCAATA TTTAGGGTTC AACAAGACTG AATTTCTGAC TCCTTTCCCT ACCTCTCCAG
61681 CATGTTAGAT TCTGGGTCCT TCATCCTAAC CCCCTGTTCA TGCCATAGCC ACCCTGTGGT
61741 ACCAACTTTG GAAGCCTGGA TCTTCATCCC CTCATGATAA TGAGTGTCCC ATCAGGTCTC
61801 CATGCTCAGC TTGGCAAGAG TATCTGTCTT CTCCTCATGG GACGGTCACA TTCACCCAGC
61861 ACTGACAGGT TCCATTCCCA CTAGGGTGGC ACCCTATATG GTCTGAGTCC AGGCCTTCCT
61921 GGTCCCTCAG TAATCTCAGC ATGGTAGCAC AATCGAAAAG GGCTAGGCAC GGCAGCACCA
61981 TTTCCCAACA AGAGGTCTGA TGGCTCATCA CATAGACTGA AGGAGATTCT GAAGAGCAGA
62041 GGTGGAATGA AGAATGAATC GTGGGCTCTG CTCTTCCTAG GCCTGTCTTC CTCTCTCCCG
62101 AGATGTTAGC TAACTCATGA GAGCCAGAAA CCAACTGCAG GCTGGCCTCA GGCACCTAGG
62161 TAGTGCTTCA GCCTCAGCAG TCCACATTCT AGGAACCCCTC ATAATATGGG TTGAAGTATG
62221 CATTCCCAACA AAAATAAAGT TGTGGAAGTC CTAACCACCA GTACTGAAAT GGGAAAAGTT
62281 CCCTTGTCCTC GCTCGCATGG CATGTGATAG GAGTGTGGCT AATTTCTTCA GTGCCTGGCT
62341 GCTCAAACCT CTAGGGGAAC ATTAAGACGG GCAGGTTGTG GGTCTCCAAC CCCATGACCC
62401 CACCACAGTG TCTAGGGTTG AATGTTTACA GCTCCTGAAG CCACAGTGGG TGTGTGTTAC
62461 AGGGTGCTCT TTTAGTTTTG CCATTTATAG GCAGCTGGTG TTAACCAACT CAATTAGACC
62521 GTCTACCTTG TCCCAAGGAC AGAAGAAGGC TTTCTGTATC CCAGGTTCTT GCCTTGCTGT
62581 ACCGGAATAA ATCAGACCAC ACCTGGGCTT AGAGAAAGAG TGCAAGGTTT TATTAGGTGG
62641 AGGTAGCTCT CAGCAGTTGG GCAAAGCCAA AAGTGGATGG AGTGGGAAAG TTTTCCCTTG
62701 GAGTCAGCCA CTCAGTGGCC CAGGCTCTCC TCCAACCACC CCAGTCAAAT TCCGCTCAT
62761 TTTGCCAGGC AAACGTTTGT TGTGTGCTCT TCTGCCAGTG TGCTCCCCCTG GACGTCCAGC
62821 TATTCTGTGC TTGTGGCAGG CCAGGGGAGG TCTTGGGAAA TGCAACATTT GGGCAGGAAA
62881 ACAAAAATGC CTGTCTCAC CGTGGTCCCT GGGCACAGGC CTGGGGGTGG AGCCCTAGCC
62941 GGGGACCACG CCCTTCCCTT CCCCCTTCC ATATCATTTA AAGGGACCAT GCCCTTCCCT
63001 TCCCAGCACT TTCCCCCTCC TGTATCAGGA CCTGTGAATG TGGCCTTATT TGGAAAATAGG
63061 GTCTTTGCAC TTCATCAGTT AAGATAAGAG TGGGCTCTAA CCAACATAA AGGGTGTCTT
63121 TATAAAAAGG AGAAATGTCA TACACAGAGA CTGACACCTA TAGAGAGAAA ATGTGGTGAG
63181 TAGACACAGG GAGAATCACC ATTCAAGTCA AGCAATGAGT CTGGGGATAC CAGAAGCTGG
63241 GAGAGAAACC TGGAACAGAT TATCCCTCAT TGCCTTCAGA AGGAATCAAA CCTGATGATA
63301 CTTTGATTTT AGACTTCCAG CTTCCAGGAC TGTGTGACGA TAAATATCTG TTGTTAAGCC
63361 AACGAGTTTG AGGTACTTTG TTACTGCAGC CCCAGAAAAC TAATACAGTA GGTACTATGG
63421 ACTGAATTGA CTCCCCGTCG CAAAATTCAT ATGTTGAAAC CCTAACCCCTC AGTGTGATGG
63481 TACTTGAGGC TGGGGCGTTT GGGAGTCAT TATATTTAGA CAACTCATC AGGATGTGTC
63541 TCTCATGATG AAATTCATGC CCTTATTAAA AGAGACAACA GGCCAGGTGC AGTGGCTCAT
63601 GCCTGTAATC CCAGCACTTT GGGAGGCTGA GGTGGATGGA TCACCTGAGG TTGGGAGTTT
63661 GAGACCAGCC TGGCCAACAT GGTAAAACCC CATGTCTACT AAAAATACAA AAATTGGCCA
63721 GGTGTGGTGG TGCACGCTTG TACTCCCAGC TACCTGGGAG GCTGAGGCAG GAGAATCCCT
63781 TGAAACCAGG AGGTGGAAGT TGCAGTGAGA TCACACCACT GTACTCTAGC CTGGGTGATA
63841 GAGACTCCAT CTCAAAAAAA AAAAAAAAAA AGACAATAGA GCCAGGTGCT GCAGCTGATG
63901 CCTGTAATTC CAACACTATG AGAGGCTGAA GCAGGAGGCT CGCTTTAGCC CAGGAGTTCA
63961 AGACCAGCTT GGACAAAATA GTGAGACCCC CAACTTCTAA AAATTTAAAA AATGAACTGG
64021 GTGTGGTGGT ACACATCTGA GGCTCCAGCT ACTCTGGAGG CTGAGGTGGG AGGATTGCTT
64081 GAGCCCAGGA GGAGGCTGCA GTGAGCCATT GCTGTCCAGC CTGGGCTACA CGAGAACCTG
64141 TCTCGGGAAG AGGAGAAAAC AGTGAGACCT CTTTTTCTCT CCTCCTTCTC TCCACTGCCT
64201 AAGCCCTACA AGCACAACAAA GGACACCACA TGAGCACATA GTGAGAATGC TGCTGCCACC
64261 AACAAGTCAG GAAGAGAGCG TTCACCTAGA AACTGAATTG GCCAGCACCT GGATCTTGGA
64321 CTTCTGAGCT TCCAGAACTG TGAGAAAGTT ATTTTTTTTT TAGCGACTAA GTCTATAGTA
64381 TTTTATTACA GCAGCTCAAG GTAACATAA TAGTAGAAGG GATGAATTAT GGAGATCACA
64441 AGTCCACGCC TCCAGAAAAA GACTTCCCTA AAAATTAGTC TGAGCAAAAT TCGAATGATG
64501 AATTATTTTT AAGAACTTTT AAGGGATCTG ACAAGTTTGC AAGAGCTAGA GAATGCTTTA
64561 CAACGTGATA ATAGAATGCT CTGTGATGAC AGAAATCTTT CCACACTGTT CAAAACCTAGC
64621 TACTGGCCAC TTGTGACTAT TGTGCACTTG AAATGTGACT GGTGTCTGAG GAGCAGAATG
64681 TTTAATTTTA CTTAATTTTA ATTCATTACA ATAGCTACAT GTAGCTAGGG GCTACTGGAT
64741 TGAACAGCAC AGCTCGAGTC TTTTAGAGGG AGACAGGACT CACCAAGATG GATGCTGGTG

Figure 8 (Page 20 of 73)

36/162

```

64801  GCCAAGCAGC AATGGCAGGT AGTACACACA CAAGAGGCAG ATGATACAAC ACATCCTTCC
64861  CAAACCTGGA GATAAGCTCA CCCACAAATC CCGCCGCTGA AATAGAGTTG ATGTTACCAA
64921  TGTGCATTTT TATGTCCTTT TCCATACAGA AAGATCATTC AGCAAGTACT ATGGTACTTA
64981  AAAAAACAACA TTCAATTTCAT TATTATGACA AAATTAAATT AATAGCTCTT CCTTAAACTT
65041  TTAAATTCAA TTTACAATGC TTACTATTGG CATTTATTAA TCTACCAATT TTTTCCCATA
65101  GAACCCATAG AACAAATAAT CTACCAAATT TTTAACATT C ATTTTGGCA AGGCTTTTGC
65161  AATTTGACGA ACTTTAAGAA GAAAACCTAT AAATTGCAAT TTTTAAATCT GACATACTGG
65221  ACTTTTAAAG TATCCAATTG ACTAATGAAC AAAACTGCTC CAAATTTTTC AATTCTTAAA
65281  AATCTTAAGA CAATACTTAA TATGGCAAAT CTTAACTTCT TAAACTTTGT AAGAATGCTA
65341  ATCAACTTAG ATTGGTATAA AGTTGAGTTA AAAATCACAG GATACATCAT CTCAGCTATA
65401  AGTTTTCATG AGTTGAGTTT TTACAATCAC TTGAAATGCT TAGAATAGGA AATACGTATA
65461  AATTATTTAA CATAAAATAT TGTTACAAAA CCTCTGGAGT GTCAGTTTCT CTGGCCAGAC
65521  TTTATGCTGC AGCACCTTTG CCTGAGTTCT TGTCTGTCAT CCAGGAAGAA TTAGGTACAG
65581  AGGCAAGAGT CAAGAAGATT AGTTTTCCAA TAGTTCAGCT CACCTAGTTA ACTCCTGTTC
65641  ACAATCTTCA AAGTTATCAG AAACCTGCAA TTGAGGGTTA TAATCCATTC TTTGCAGAGT
65701  TTCAAAACAA GACAACATTT GTCTATGAAT GTTAAATGT CTTAGGGTAG TCACAGTCAA
65761  AAACACAATT GACAAAGAAA TTTAGTCACC TCTGTGATTT ACAATAGCCT AACACAATAA
65821  CTCTAATTAT AACTGATGAC ACAAACTCAG ATATCAGAAC TCTAGAAATC CCCTATAATT
65881  TTGGAACACA CATTACAGT TTTCACTGAA ATATGACCTG AAGATCAAAT ATCACCTTAT
65941  TTCAACAATC CTATATAACT AAACGTGTCA AATGATCCTG TTTACCTCTC CTTTGGATAC
66001  TCCAGGGGCC CTCTGTAGCA TCCAAAAGTT AGGGGTTAGC AAAGACAATT TTGAAGCTGT
66061  AAAGGCTCAA AACACTTAAT GAACCTCTAG TCATATCTGT TCTCTACTCA CTAAATGCTA
66121  GTAGCACCTC TCAGTTGTGG CTAAGCTGGG AGGATCTCTT GAGCCTAGAA GTTTGGGGAC
66181  GCAGTGAGCT ATGATTATGC CACTGCACTC CAGCCTGGGC AACAATGCAA AATCCTGTCT
66241  CAAAAACAAA AACAAAAAAC AAATTGCCTA TGCTGTGGTT ATCTCACAAT TAATAAAAAG
66301  GAAAAAATAA GTATGCAGTC TTTGTAGGTC CTTGGGGTTT GTTGGAACTC AGAAAAACAAT
66361  ACCCCAAAAT AAAGACCGCA GAAGCCAAAG TTTTCTCTCT ATCTTCTCCT GCCCTCCTGT
66421  CTCTGAGTCC CATTCTCCCC GGAGTCTAGC CATAGAAATG AGAATTCCTC TTCCTCAAGT
66481  TAGGTCATAG AAATCAAAAC ACCTTTTCCC CAGAGCCCAG CCATAAAACC TAAAAATATT
66541  ACTCTAACTT TCCCTCTGTT TTTCTGTGTA AAAACTGGCC ATAAAGAAAT TATCTGAACT
66601  ACCTTATTTG ATCATAGATC ACCAGACCGC ATTCCAGAGA GGATCCAGAA GGAAGGAATG
66661  CTGCACAGAG AGGCGAAGAA GAATCTAGAC AGACAGGCCT TGCTGGGTTT CCCTACTCTG
66721  TTTATTAGCA ATCCTATTTT TACACGGCGG CCCATACTTT GTTGAATCTA AAAAATAAAA
66781  ATGGACAATT TCCCCTGTAC ATGTTAATAC ACATTAATAA ATTGGATATA AATTGGATAA
66841  TTTATTAATA TACACATTAA TAAATTGGAT GCAGCCGGGT GCAATGGCTC ACGCCTGTAA
66901  TCCCAGCACT TTGGGAGCTG AGGCGGGCAG ACCACGAGGT CAAGACCACC CTAGCCGAAA
66961  TGGTGAAACC CCGTCTCTAT TAAAAATACA AAAGTTAGCT GGGCGTGGTG GCACATGCCT
67021  GTAGTCCCAG CTACTGGGGA GGCTGAGGCA GGAGAATTGC TTGAACTCGG GAGGCGGAGG
67081  TTGCAGTGAG CCGAGATTGC GCCACTGCAC TCCAGCCTGG TGACAGAGTG AGACTCCGTC
67141  TAAAAATAAT AATAATAATA ATAATAATAA TAATAATAAT AATAAATTGG ATGCATTTTA
67201  TCCTATTAAT CTTCTCTTGG TCGGTGGTTT TCAGCGACTC TTCAGAGGCC AAAGAGTAAG
67261  TTTTCCCTTA GCCCCTACAG GTTCTTATGT TTAATTTGTT ACTCTCATTT AAGACATAAT
67321  TAAAGTGGCT TCTCCATGAA GATTATTTCT GCATCCATTA TTTGGTAAGA TTGGCCGTTT
67381  TCTCCTTTGA TCTCTACTTC ACACTGACCC ACATAAAACA TCACTGCCTG TTTTTTTGTT
67441  GTTGTGTTTT GGAGACGGAG TCTTGCTCTG TTGCCCAGGC TGGAGTGCAG TGGTGTGATC
67501  TCCGCTCACT GCAAGCTCCG CCTCCCGGAT TCACGCCATT CTCCTGCCTC AGCCTCCTGA
67561  GCAGCTGGGA CTACAGGCAC CCACCACCAA GCCCGGCTAA TTTTGTATT TTTAGTAGAT
67621  ACGGGGTTTC ACTTTGTAA CCAGGATGGT CTCGATCTCC TGACCTCGTG ATCGGCCCCG
67681  CTCAGCCTCC CAAAGTGCTG GGATTACAGG AGTGAGCCAC TGCGCCCGGC CCGTTTTTTT
67741  TTTTTGGTTT TTGCATGTCT TCTCCCTTTT ACTGTAAACT ATTTCCACTA CCAGCGTAGT
67801  TATCATTTCT ACTGCTTAAT AATTGTTTTG GGGAAGTGAA TGCATCAACC CACATGAATT
67861  TCTTGTCTAT TTGACAATTT ATTCTCTTTA GGAATAGTAT TAACTCCTAA GGTCCTGGGA
67921  GCCAGTCTCT GTACTTGGCT GCTCCAGGGT CCTACTTCAG TTTCCAGCT TCTCAGTACT
67981  GTCAGTGTC AATTGTGGTA ATAATTATTT TTGTCCACCA AAAGACTCTG TATGTGAATG

```

Figure 8 (Page 21 of 73)

37/162

```

68041 AGTTTTGAAA TCTGCTGAGT AATACAGTGT CAACCCAGTT AATGATTTGC CGGGCGGCTT
68101 GATCAGGGGC TGTCCAAC TA CCGGCATTTT GATTTGGAGC GTCATCTAGT GTCTGAAAAGC
68161 ACAAACAACA TCCTACATTG TAAATGCCTT TGGCTACAGA GATTGAAACC AAAGCAAACC
68221 TATGTTTTGA ATTGTTATTC TTCAGCAGTT CTGCTAGCTT TGAAAAATCT AAAAGTTAAA
68281 AAAAAGCTTT ATATTTCAAT TTCTGCCTAA ACTCTTTAAA ATTGCTAGTT GACAATTAGA
68341 TATTTTCAAT TTAATGAAAT TTTTTTTTAG TTCACAGATT AATACACAAT GGGGGAGGGT
68401 TCTTATTCTG TTGGACTTTT ACATAACCTC CACTTTAGTG CAGTCTGCTT TATGGGGTCT
68461 TGTTTGAGGT GTGTGTGTGT TTAAGGGAAT GTGGTTTACA ATCAAAATAT TGGGTTGCTC
68521 TTAGGCACAT TGTAAGTCA CACACCTGTA TTCTTATTGA TACATAATGA TTAATAACAT
68581 TATTATTACA GCCTGATCAC CATCATTATT GATATATCTA AATAATGAAT TTTATAATTT
68641 TGCTTCCTGT CAGGCAAGAG CCAATTTGAG TGCTACCATG TTTGTATAGC AGTATTTATG
68701 TCTGTCACTT TCAGTCATTT TACTTCACCT GTTCTTAGCC AAACGGCCGA GAAGCGATGG
68761 TCATTTTACT TCAAAAATGA AAAGAATTAA TATTTTTACG TTTCCCTTAA AGACCCTATG
68821 TTTAACCTCC ACTCCTGGGT AAAATGGTCT AGTCCCTCCT TTTCATATCA TCTCTGATAT
68881 CTTTTGCACA GCCACTATTA CCTACCGTTT TCTAGATCCC TATTCTTCAA ACACCACCAT
68941 GAAGGTAGAG CCTGTCTGAA TTATTTTCTT GTCCCTGAA CTCAGTACAT TGTAGGCTT
69001 CTTGAAGATG TTGATCAGTT GTTTGTGGAG TGAATGAATC AGCTAGCATG ATTTTCTAG
69061 ACCACTGAGA CAAGTGTCTA AGACACTTGT TCCTTCCCCT GTTCTTGCCCT CCTGTGCAA
69121 TCCATGCAGT CTCATGGCTT CCCAGTGCCT CAGAATTATC CCCTGTCAAA CAGGCATTAT
69181 AATTTCTGTC CACTGAAAAG GACAAAAAAC TAAGTGTATA GCTAGAAGTT AAAAATTACC
69241 GGCCAGGTAC TGTGGCTCAC TCCTGTTATT CCAACATTTT GGGAGGCTGA GCGGGGCAGA
69301 TCACCTGAGG TCAGGAATTC GATACCAGGC TGGCTAACAT GCGACCCCCG TCTCTATCAA
69361 AAATGTAAAA GTTAGCCAGG TGTGGTGGCT CGCACCTGTG GCCCCAGCTA CTCAGGAGGC
69421 TGAGGCAGGA GGATCGTTTG AGCCCTGGAG GTTGAGGCTG CAGAAAAATA GGAATATACT
69481 CTCTTTCAAG AGTTCGTGGT TTTGACTGCC ACCTAGCGTA CATCAGAAAA ACCGCATGAC
69541 ATAGGAAATG CCTGTGACAG AGGGGTAAAG TGAGAGAGGT TGATGAAGAA TGTATTGAAG
69601 GAGTGAAAAC GCTTCCATCC CTCTACTTAC TAAATATATT AGTTAAGTAG TTGGGGCATA
69661 TTTTAATTCA TGCATTTTGT AGATAGAAAA ACAAAGTTT TATTCTGTTT GATTTAGTTG
69721 ATACTTTAAT ATGTGTGTGT TTAGGATGCA TGATTTATAA TCAGTCTGCA GCACTTCTTG
69781 GAGAAGTCTG AATTCTCATT CTCCATTTCC TTATTGGCAA CGTGAGAATG ATTACAATGG
69841 TGGTTGTCTC ATAGAATGCA GGGAGTCAGA ATGAAAATAG TCCATATAAT GCCTGGTGCA
69901 GAGGAAGGGT TCAGTTAACT GTCTGTATTA ATATTACTGA TAACAGTCAT GACAAACAAA
69961 AGCTTAACAA CAACACCACC AACAACAGTT GCAGAATTGA GCCACCAATT TGCACACAAG
70021 ATTGTAGGTA GGATGTTTTA GAAAAGTTAT TATTTAATAT ATGTATATAT TTTTGTACTT
70081 AAAATATGTC AGAGGTGTGT CTAAGAACTA TTTAAATGTT AACTCCTTAA TCCTCATAAT
70141 GACCCATGAA ACAGGTAGGC TTATTATTGT CTCTTTACAT GTGAGAACAC TGAGACACGA
70201 AAAGGTTTAT TAACTACCCC AAAGTCACAC AGCTGGTAAA ACGGCAAAAT TGAATTTGAA
70261 CTCAGACATT CCAGGTCCA AGACAGTCTA ATTATTCTTT TGACTAATAT ACTAAGCTGC
70321 CTCTGTATTT TTCCTTGATT ACTTTGTAAA AGTATGAGGA AAATATAAGT GCTTCAAGTA
70381 ACCATGAAAA ATATAAACAA TCTATGTATC AACTGAAGCA TAATTACAAA TCCTTTGATA
70441 AGCAAACATA ATAAAAATTT GATATCAATC AAAACTTTCA TGTAATGTAA GCAGGTGAG
70501 ATGAATTCTA TAGTAAAAAA GTGCAGAGTG CTGGAATACC ATGCTCCTAA TATATTGGCT
70561 AGGCACACCT GCCTGCTATC AAAGGTATGC ACACACCTTG GATACAGAAA GTTGGGACTG
70621 GGTAGTTATG TGAGTGTCTC CAGAATTCTT TCCCCTTGG GAAAGAATTG TCCATCATAA
70681 GCTTGATGA TGGACAAGGA GTGAGCTCCC AGAACAGTGA TGTGGGGATA CATCCTCACA
70741 TCACAGTGAG AATGAGTGTT CTAGACTGTT TACACACCTA CCACTCCTAA ATGCACACAT
70801 ATAATTGCTT GCACACACAC ACATACACAC TCATCTCTTC TCTGGTGGTC CAGCTCTATC
70861 TCTTATCATT AGGCTTCTTG GGGCTAGTAC CTAGGGCCTG TATCCTTTCA GAGGCAGCTA
70921 AGGGAAGCAC ACATAATTAG AAAGAATGAA CCAGCTTGTT GGATTTGGTC TCTTCGCATC
70981 CAGCCCTCCA AGTTAAGGAG AGTACCATCT TTCTTAGGGT CACCAAAGGA AAAAAAAAAA
71041 AAAGAAAGAA ACAGAAAGGAT ATCATAACAGC AAGGATCTAA TGCAAATATG CCTCAAATGA
71101 GAGGCTACTG TGTGCTGATC CCAATCCCAG GAACTGTATG CACATTATCT AATTTAATCC
71161 TCACTGTATT TCTGGGAGTA TTATTCCTCAT TTTACAGAGA AGGAACTTGG CAGGGTAACC
71221 AAGCTCATGA ATGGAGAAAC TGGGATTAAA TATAAGCTT CCTTGCTCCA GAACTGCTGT

```

Figure 8 (Page 22 of 73)

38/162

71281 CTTTCTGCTC TTCCACACTA CCAGCTCAGC TGTGCTCTCT ACATGCAGGC AGTTTTACAA
71341 GTTTCAGATT AGCCTGGGAC TTCCAGGGTT TTGAATGGGT TAGGGAATGG GGAACCTTTG
71401 GGTTTACTTT CCATTTTTTC TTCATACATA TGTAATATAT AACATAAATC TATGGTATAT
71461 ATGATAAATA TATGGCTACA TATGAACAT ATAATCACAT ATATGCATTA TAAATAAATA
71521 TTAATTTTAT AATATTTTAA AGGTTATCAA ATAAATATTA ATATAAATAA TTAAATAATT
71581 AATACTCAGC TTTGTTTTCC AAAGTGATAA ATGCCTATAT TTAGCAAAAT ATTTTTTGGA
71641 GGCCTGATAG TTTTATAGGAG TGTAAAGAAG TCCTGATATC TAAATGTTTA AGAACCACTA
71701 TTTTAGGCTG TTGTCTTCTG TCTTATTTTC CCAGCTAGAC TGGTAAATAC TTGAAGGCAA
71761 ACGTTTAGCC AGCACATTAA CATTTTATGT TTTTATTCTT TTGTGCTCTC AGTGGCTGTG
71821 TCTTTTCTAT CGATTCTCA CACTGTATGA TGGTTATATT TGTCTGTATC TGTCCCACCA
71881 GGTATAAGTT CTTGAGAGGA CACACTGCTA GGTGATCTT AGTTTTTATT ATTTCTCTCTG
71941 GTGTCCTGTG CTTAACAAGT GCTCATTAAG TGTGTAAAAA CACAGCACAG TAAAAAACTA
72001 GACATTAAAA AATAATGTCA ACCAATCTAT TGAAATTTGC ATTTCCATGT TTCTTCCAAT
72061 ATAGTCATTG TGTCAGGTTA TGTACTTATT CTGATGAAGA CTATTGCCTA ATATACGTTT
72121 GCATCTTGTG CTTTATAACT GCCTTCATAT AGACACAGAT TGAGAAGGTG TAAAAATGTG
72181 CATATCCTCA CAATTGACAA ATTCTTATCC TTTGAGGGTA GGTTTGACTT TCTGAAATGC
72241 TTTGACATCA TTTGAAAGAA GCTTGAAGAA TAAGATAGCT GTTAATGACC CAGTTTCTTA
72301 TGTCACCTAT ACAATTATAA TGGCAATTTT AAAATGTTAG GTAAATATAT TTTGCAATAT
72361 ATTGTTCTCT TTGTAATACT CTCTATGTAT TTATTTATAT TTTTAAATTT TATATTTATG
72421 TATTTATTTT TCTGGACAGA GTCTTGCTCT GTTGCCAGG TTAGAGTGAA GTGTTGTGAT
72481 CATAGCTCTC TGCAACTTCA AACTGCTTGG CAAAAGTGAT CCTCTGCCT CAGCCTCATG
72541 AGTAGAGTAG CGGGAACCTAC AGGCGCATGC CACTGCACCC AGCTAATCAC TATTTATTAT
72601 GCTCCTACTG TGTGCTTTAG TATATTTTCT GTTGTTTTCT GCAACCCATT TTGAGGGCGT
72661 GTTAGGGAAT ACAGATGCAG TAACTTTCGT CTCAGCCCTT GAGGTGAGGA AATATTTAGC
72721 CTCAGGTTTA ATCTAATTGT TGGCCATTTG CCTTCAAAGA TTGAAATATG AGCAAACTG
72781 TGGCTCTGGG TTATATGTTA AAAAAAGTT TATGGGGCTG AAGCCAGGCA ACAGACAAGA
72841 GCCCCTACAA TCTTATTTAG GCTGAAAATA TCCTGGAGTC CCTGTATTGT TGGTCTCAAG
72901 CAGATAGCAA CACTAACACT TACTCTTTGA GGCAGGCACT GCCAGTGGGG TGGCTGTTAT
72961 TATTAGCTTC ATTAATTGGT GAGTCAGGAA AAAACAGCTT TAAATCATTC AAAGTTCTGG
73021 CCTATACAGG ATTTAGTAAT ATTAGGTTAG CTACATCCAA AAGATGACAG AACCTACTC
73081 TAAGGCTGGG CTTGGTGGTT CACACCTATA ATCTCAAAC TTTGGGAGGC TGAGGCAGGA
73141 GGATCACTTG GTGCCAAGAG TTTGAGACCA GCCTGAGCAA CATAGTGAGA CCCCTGTCTC
73201 TATCAAAAC AAAGAACTCT AATTGGCATA GTAGAAGGAA AAAGTGAAAG AAAAACCAGC
73261 TGTCACCCTC ATTCCTTACA CCTGTCTTAA CAACTCCTCT CACTATCCTT TGAATATATC
73321 TTGGCTGTTT GAGTCTCTCT CTAGCCCCAT TACTGCTGTT TGGACTTGAC ATTTTGCTCT
73381 GCATTTTAA CTTTTCTACC AGGGTTTCCA GACCCTGAAG AGTGTGGCAT GAAACAAAAC
73441 TAGTCAACCT ATAATATTTA TGATGTGTGT GTAAATAAAA GAATACACAA TATATTGCAT
73501 TACAATATTT TAACTGTGTC CTCAATTTGT TTGTGGCTTT CTTGAGGACA TCAGTTTGG
73561 GTGGGACGAC CACATCCTTA ATCTGAACTT TCCCTTGGAG GTCATCTTT TTTTTTTGAA
73621 ATAGAGTCTC GCTCTGTAC CCAGGCTGGA GTGCAGTGGC GCAATCTCAG CTCACTGCAA
73681 CGTCCGCCTC CTGGGTTCAC GTGATTCTCC TGCCCTCAGCC TTCCAAGTAG CTGGGATTAC
73741 AGATGCACGC CACCATGCCG AGCTAATTTT TGTATTTTTT GAAGAGACGG AATTTACCA
73801 TGTTGGTCAG GCTGGTCTTA AACTCCTGAC CTCATGATCT GCCCACCTCA GCCTCCTAAA
73861 GTGCTGGGAT TACAGGCGTG AGCCACCCCG CCCGGCCAGA GGTCATTCTA ATAGACTTTT
73921 TTTTGTGTTG TGCTCACAGG CTTGTTCAAT CTTATTTCAA AATTTGAGAA ATACAGTTTC
73981 CATGGAACAC CAACCAGATA TCAGGTTGCT ATGGAGTTGA TAGTCAAAAG CTTTGTATCT
74041 TCCAGTTTTT CAGAATGGCT TCTAAAGGTT CTGATTCAGA GCTCTTAGGC GAAATTGAAC
74101 AACCAGTGT CAAAGTACAA CATTCAAGGAA GTTAAAAACA TGACTGACAT ATATGTACTA
74161 TATATAGTGA GCTTGTGTAT GTGTCAATGA ATGATTTAAT TCATTAATGA AGGAGGAAGC
74221 AGAATCACAA TTAGGTCAAA GGAAGATACG GGAGAATAAA ATATGTATTT GGTCAGGGAA
74281 AGGATGTATA CTGGAAGAGG AAGGGAAAAT CAGATATAAA GTTGTTTAAT GACTTATTAG
74341 GCAATACAAAT AATAACTTTT AGGGTCATTT TTTCTATATT AAGAATTCAT TTCCATCTCT
74401 ATGACAAAAT CCTTATTAAT TTATTAACT TCTACAAGTG AATGTTTACT TTTAGATAGT
74461 CTGGACCCAA TAAAATGTAA ACATTAAGTC AGAGTTACTT TCACGTAGGA CAGTGTGTCT

Figure 8 (Page 23 of 73)

39/162

74521	CAATAAGGTA	CCACTAGCTA	CACGTGATCA	TTGACCATTT	GGACTATAGC	TAGACTGATT
74581	TAAAATGTTT	TAAAAGTGTA	AAATACACAC	CAGGTTCTGA	AGATTTATCA	TTTAAAAAAG
74641	AATGTCAACT	GTCTTTTTTT	TTAGCTTATT	TATTATATGT	TGAAGTGATA	ATAGTTTAGA
74701	TATATTAAGT	TAAATAAAAT	ATCTTAAAT	TAATTTTACT	TGTTTCTTTT	CATTCTTTCA
74761	ATGTGACCAC	TAGAAATCTG	GAAAGTATTT	ATGTGATTCA	CATTCTATTT	TACTGTCTAG
74821	TATTGCCCTT	CATCATCAGG	TACCCCATAA	GTAGGCTTTT	TAGATAATTC	TCTAATATAG
74881	CTTGGAAGGA	TATGGAGAAA	TATTTTGTGCG	TTGCTTTTAA	GTTTTGCATA	ACTTTTTCAT
74941	CACACTTTAT	AAAGGATCTA	GAAAAGGGTT	GGTTACATGT	TTCTCTGTCT	TCTGGCCTCC
75001	ACCATGTTGC	CAGGAGGTTG	GGGACAAGAT	TCTGGGTGGC	TGGATGTCCT	AATGGCTTGA
75061	GGTCTGGACT	TGAGATTTGC	ATATAAAGAG	ATGTGATTAG	ATTGAGTCGA	CTAGAAAAAT
75121	CATATTAGAG	AACTGAATCA	CAGCGATTAA	ATTTACATGT	CGATTTATAA	ACCAGGACAC
75181	CAATTTATAG	TGAAAGAAGG	TCCAGTTACC	TGGTAATCAA	GACGTTTCAT	AGCTATTTTC
75241	ATGATGGATA	TACTTAGCTG	AGTTTTAAAT	GAGAAGGGGG	TTCATTGCAC	ATAGAATAAG
75301	ATCTAAGTGA	AATGTTTATT	TTATTTTTTT	TTTTTTGACA	TGGAGTCTTG	CTCTGTTGCC
75361	CAGGCTGGAG	TGCAATGAGG	CAATCTCGGC	TTCTGGAGTG	CAATGAGGCA	ATCTCGGCTT
75421	CTGGAGTGCA	ACGAGGCAAT	CTCGGCTCAC	TGCAACCTCC	ACCTCCCGGG	TTCAAATGAT
75481	TCTCTGCCT	CAGTTTCCTG	AGTAGCTGGG	ATTAGAGTTG	CCTGCCACCA	CGCCAGGCTA
75541	ATTTTGTAT	TTTTTTTAGT	AGAGATGGGG	TTTCACCATG	CTGGCCAGGC	TGGTCTCGAA
75601	CTCCTGACCT	CAGGCGATCT	GCCCGCTCA	GCCTCCCAA	GTGCTAGGAT	TACAGGCGTG
75661	AGCCACCAAG	CCTGGCCTAA	GTGACATGTT	CTTATATTGT	TCCTTCTTTT	CTTTTTTTTT
75721	CGACTGAGTC	TCACCCTGTT	GCACAGGCTG	GAGTGCAGTG	GCGTCATTTT	GGCTCATTGC
75781	AACCTCTGCT	TCCCGGGTTC	AAGCGATTCC	CTTGCTCAG	CCTCCTGAGT	GCCACCACCC
75841	CCAGCTAATT	TTTGTACTTT	TAGTAGAGAT	GGTGTTCAC	CATGTCGGCT	AGGCTGATCT
75901	CAAACCTCTG	GCCTCAGGTG	ATCCGCCCCC	GAGTCTCCCA	AAGTGCTAGG	ATTACAGGCG
75961	TGGGCCACGG	GGCCAGCCT	TATATTATTT	CTTTTACTAC	AATATATTAG	TATGATGCAG
76021	GTGCTTCAAT	TGTTTATACA	CTTCCATAA	TTTTGTATAA	TTCTTATACC	CTGTCACTCT
76081	GAGGAATAGC	CGGTCTAAGT	GTTTTTCCAC	CACTGCTAAT	TCATCCATCA	CTAATCTCAT
76141	TAGACTGTTA	ATTCCCAGAG	GACATAAGCA	CACAAGCAGA	CAATGTTTAC	AAATGTTGGA
76201	CAAATGTTAT	TTAATAAAAC	AATGGGGTCA	CCCTTAGTCT	AAAAGATGTT	TCACTTTTCA
76261	TTTGTCAATG	AACTCTTATT	TGTAGGTTCC	CTTTTGTACT	TCCACAATC	TAAGGCTGTT
76321	CTCTTTAACA	CATATTTTCA	TGAAAACATA	TATTTGAGCA	GAAATTGTTG	GGGAGTTGTA
76381	ATATTACCTT	TGTCCCTAAA	TATGAATCTA	TAATTATATC	AAATATATGG	GCAGACAATT
76441	TACTTTGCCT	TTAATCTCAA	GAAAAAATA	GCAATTACTT	GGGGTCGGAG	AGTAAAAATA
76501	GAAGTAGTGA	ACCTTAAAGT	AGCAAACCTT	AGAACAGAAT	AGTTTCAGAG	GGGATGAGAA
76561	GAGGTGATTT	TTCAGCTCAT	CAACAACAGA	TCTTATAATA	AATTACATGT	TCTGGTACTT
76621	TTCTTGTCTT	TCTGTGTTAA	ATTTTGTCTAT	TTAAAAAAT	AAATTTCAAA	TACATTGTTT
76681	ATCTTAAAAG	TCAAGAGTGT	GTTTTATTAA	AGTCAGTTGC	TTTATTTGCA	ACTCAAAAGA
76741	TATATTTGAG	TTCCCAACTG	GAGATTGTCC	TATATGGTAA	CTTGCGTAAG	GTATGGTTAC
76801	TGAAAGTAAC	CTACAATTTT	CATGGGCTGA	AATTCATTTT	TATATTGCAG	CGTACAAAAA
76861	TAAATAAATA	AAAAATGCTT	GTTTTCTTTG	AAAAACATAT	ATCTCAGTGC	CTCTAACTGC
76921	CAAATCTATT	GGCTTTTTTG	CAGGCTTAAG	GGCTCTCCCT	TGTTCCCTTTA	TGATCTCTAT
76981	CTTGAGGGCC	AGACCTCCTG	CCTTACACAA	CTCAGAGGGG	GACCTCAGAG	CTCTTTAAAA
77041	AGAGCCCAAT	TTCTCGCCTG	TAGAGAAAGT	AAAAGGATGC	CCCACCCCCA	TCTATGAAAA
77101	GAGGGATTTG	ATAGTTTCAA	TGTCTTCAA	TCAAAGATTT	AAGTCTGTAG	CCCCCACCAC
77161	CCCCGGACCC	TAGCAAGGCT	CATGAACCCC	CTCCCATCCC	GCCCTAATTG	CTTTGGACTG
77221	GCCGTGGAAT	CCTTGTCCCA	GTCCACAGTT	CCTGTGCGAC	TGCACGAAGA	ATTACACAGG
77281	GACCTGTGTT	ACTTCCCTTG	TGAAGAAACA	GAATTATCAT	GAAAAATTAG	GTGGAAACCA
77341	TTTCGCTTTT	TTCTTCAAAA	ATAAGGGAAG	CATGTGCCCA	ACCACCCCTG	GGAAAAAGAA
77401	CCTTCAGGGG	CAAAGGAGCG	AACAGGTAAT	TTATAAGAAA	AACAGAAAGT	GGTCTCTGAC
77461	TGCCCCAGAC	TTCTTCGGA	GTTGGGGGAA	TTGGGGACGC	CTGGACGCGT	TGTTTTTGTG
77521	TTTGTGGAAA	AAATAAATGA	AGAGCATGAA	GCCCCGAGGCT	TCTGAGATCC	TTTCCTGACC
77581	AAACCCAAGT	GATTTGGTGC	GGGGAATTTT	AATATTTTTC	CCCTTTTGTG	AGGTGGAACA
77641	AACACAACTT	GGGAGCAGCG	CAGCGGCTCA	GAGCCTGCCA	GCCAGGCGGG	CGACCAGAGC
77701	ACCAATCAGA	GCGCGCCTGC	GCTCTATATA	TACAGCGGCC	CTGCCAGGCG	GCTGCTTCAT

Figure 8 (Page 24 of 73)

40/162

```

77761 CGGCGCTTTG CCACTTGTAC CCGAGTTTTT GATTCTCAAC ATGTCCGAGA CTGCTCCTGC
77821 CGCTCCCCTC GCCGCGCCTC CTGCGGAGAA GGCCCCGTGA AAGAAGAAGG CGGCCAAAAA
77881 GGCTGGGGGT ACGCCTCGTA AGGCGTCTGG TCCCCCGGTG TCAGAGCTCA TCACCAAGGC
77941 TGTGGCCGCC TCTAAAGAGC GTAGCGGAGT TTCTCTGGCT GCTCTGAAAA AAGCGTTGGC
78001 TGCCGCCGGC TATGATGTGG AGAAAAACAA CAGCCGTATC AAACCTGGTC TCAAGAGCCT
78061 GGTGAGCAAG GGCACCTCTG TGCAACGAA AGGCACCGGT GCTTCTGGCT CCTTTAACT
78121 CAACAAGAAG GCAGCCTCCG GGAAGCCAA GCCCAAGGTT AAAAAGGCGG GCGGAACCAA
78181 ACCTAAGAAG CCAGTTGGGG CAGCCAAGAA GCCCAAGAAG GCGGCTGGCG GCGCAACTCC
78241 GAAGAAGAGC GCTAAGAAAA CACCGAAGAA AGCGAAGAAG CCGGCCGCGG CCACTGTAAC
78301 CAAGAAAGTG GCTAAGAGCC CAAAGAGGC CAAGGTTGCG AAGCCCAAGA AAGCTGCCAA
78361 AAGTGCTGCT AAGGCTGTGA AGCCCAAGGC CGCTAAGCCC AAGGTTGTCA AGCCTAAGAA
78421 GGCGGCGCCC AAGAAGAAAT AGCGAAGCG CTAATTCTAA AACCAAAAG GCTCTTTTCA
78481 GAGCCACCAC TGATCTCAAT AAAAGAGCTG GATAATTTCT TTAATTTCTG CCTTTTCTTG
78541 TTCTGCCCTG TTAATTAAAG TTAGTCGTAT GGGAGTTACT GAGGTATCAG ACGAATGGG
78601 TGACGGGGTT GGAGAGTGGC CGTGGTGAGG TTACAGCATT TAAACCTTTA TTGCGGCTTC
78661 TAGGTCCCCTG ACCGGAGGCT TTTCTCGCTG GCGGATGGTT TTGGGATGGC AGTCCCGCCC
78721 CAGGCCTGTG AACGGCAGAA AAGACCGCAA AACAAAGAGC AGTTTCTTAG TCTAAAGGGA
78781 TGTCCGGATT GGAATAAAAA ATTTTCAAAA GTCCCGCCCT GCTCCCGGTG TGGTCCGTTT
78841 TTCTAGTACA TGACTTTTCAT TCTGTATTTA ATTGGATGGT GGAAGACGTT GCTTATTCTG
78901 TGTTTTTTGC TTTACTGTGA CTTAAAAGTT TTGCCTCTTT TCTCTTTATA TTAATGTCTG
78961 GGATTTTCGA CGCTTTCCAT GTTGTGGTA GTCAAGTTGA TGTCTCCTGG AGGTAGTGGC
79021 AACATCCAGC CCTGGGAGGA GAGTGCCTGC AGGTACCTTT GTCCTACATT CCTCTGCTGT
79081 TAATTTCTCA TTCTGTGGC AACGAAGGAA TGCATTTAAA AAACAGCCAC AACAGCGGCA
79141 ATAGCCCTTC CTCCACCCAA GGCAATCGTG GACCTAGGGA GTTTTTTGTG CCACATAACA
79201 TGTAGCCTTC CGCTAAACTG ACAGGTTTGA GCGTATCGAT TTTGAGCGTA TCGAAAGCAC
79261 AACTTTTAGC CAGCCATTTT GTCCTCGCAT GACTACGGTT GCTTATCCTG TTTAGACAGA
79321 CAGCAACATT TAAAAATCGA AGTTCCCTTA AACGTATTTT GTTTGGCAGT CCAAATGTTT
79381 CTATGCAGAA AACAGTATTT GTACTATTAA CTATGAAGAG TGTATGGATA AATGGGAGAC
79441 ATTTCTAATA AAGGCCTTCG TTAATGGTTC CCTCTGTTTG ACATCCATGG TGCTTCTGAA
79501 TACAGAAAGC CTAGCGTCTT ATATTCGCTT CTTTTAAAAT CTGGTGGGCA CATTTTGGTG
79561 AGACCTAAAT TATGGGGACT GGGGCTTCTG GAGATAAGCT GCTCAATTAT TCTACCATCT
79621 CCACAATGAT TAATATAGTG AGTTGATTTG TTAGTGATAG TGACCACGGA TTCATCCCAA
79681 GAAAGAGAAA GGGGAGGGAG GCAAGCAGAG AGACAGGAAG ACAGAGGCAG GGAAGAAGGA
79741 GAAAACATTC TCCCATGGTT TAAGTAATTT TGTGTTGTTA ATTTTACATT ACAACACGGT
79801 TTAACATGGT GAACCTCTA TTTTGGTGTA AGGTTTAACA TATGGACATA TTTTCCCAA
79861 GACCATTTAT GAACCTTCAT TTCTGCTTCC CCCTTCTTCC TCCCGTGCCA CCCTCCACGC
79921 TCCTATCAAT TTTGGCTGTT TTGTATAGG CTAATACGCT ATAATTTTAT GGACAGTTGG
79981 ACTGTCCTAG GTTTCTCAGG TTTCTATTTT GTTCCTTTAG TCATTTCCAC AATTCCTAAG
80041 GTAGAATTGT ATTGTTTTAA ACATTGTGTT GTGTGCTATC CTCAATGCTG AGATGATTAT
80101 GTGACAAATG GCAAGTGTTT AACTAATACC TAAATCTGTA GTATCTTATC AAGCCTAATG
80161 CTACTTCACA ATGCCTACTC CATTACCTC ACTTTATCTC ATTACTGGCA TTCTGTCTATC
80221 TCACATCATC ACAAGTAAAA CGGTAAGCTA TTTTGAGAGA GATCACAGTC ATATAATTTA
80281 TATTTATATT TATTTATTTA TTTATGAGAC GGAGTTTCCC TCTGTCACCC AGGCTGGAGT
80341 GCTGTGGCAC GTTCTCGGCT CACTGCAACC TCCGCCTCAC GGGTTCAAGC GATTCTCCTG
80401 CCTCCGCCCT CCGAGTAGCT GAGATTACAG GGGCCTGCCA CCATGCCCGG CTAATTTTTG
80461 TATTTTTAGT AGAGACGGGG TTTCACCTAAG TTGGCCAGGC TGGTCTCGAA CTCCTGACCT
80521 CAGGTTATCC GCCCACCTCA TCCTGCCCAA GTGCTTAGAT TACAGGCGTG AACCACCGTT
80581 CACAGACTCA AATCATTTTT ATTACAGTAT ATTGTTATAA TTGTTGTTTT ATTATCAGTT
80641 ATTGCTAATC TCTTACAGTG CCGATTATTA AAATTAAAT CATCATTGCC ATGTGTATAT
80701 AGAAAAAAC AGTGTATATA CGGTTCAAGT CTATCTGTGG TTTCAGGCAT CCCTGGGGG
80761 TGCAGTTTAT TAAACATGCA TTTACATTAG TCTCCCTTTT GGGAGACTAA TTAACGTAGA
80821 TGTTGTAACG TGACTTTAAT AGCAGATAGA GCTAATTTTC TCTCATTAAT CTTCTTTTTC
80881 AGAATTTTCC TGGTTATTCCT ATTTTTTATT TTTCCATATG TATATTAAGA TCTCTTCCAC
80941 CTCTCTCTGT TTCTCCATCT CAACATCAAA CAATTAAAAA AAAAAAAG GCTGGGCGCG

```

Figure 8 (Page 25 of 73)

41/162

```

81001 GTGGCTCACG CCTATAATCC CAGCTCTTTG GGAGGCCTAG GCGGGTGGAT CACGAGGTCA
81061 GGAGTTCAAG ACCAGCCTCG CCAAGATGGT GAAATCCCGT CTCTACTAAA AGTATAAAAA
81121 TTAGCCAACC ATGGTGGCAG GCGCCTGTAA TCCC GGCTAC TCGGGAGGCT GAGGCAGAGA
81181 ATTGCTTGAA CCTGGGAGGC GGAGGTTGCA GTGAGGCGAG ACCTTGCACT CCAGCCTGGG
81241 TGACACAGCG AGACTCCGTC ATAAAAA AAAAGCCGAA GCAGTGGCTC ACGCCTGTAA
81301 TTCCAGCACT TTGGGAGGCT GAGTCAGGCA GATTACCTGA GGTCAGGAGT TCAGGACCAG
81361 CCTGGCCATG AAAATACAGC CTGGCCATGA AAACACACAA TAAATTAGCT GGGCGTGGTG
81421 TCACACACCT GTAATCCTAG CTACTCGGGA GGCTGAGACA GGAGAATCAC TTGAACCCAG
81481 GAGGCAGAGG TTGCAGTGAG TTAAGATGAC GCCACTGCAC TCCATCTGGG CGACAGAGCC
81541 AGACTCTCTC TCAAAAAACT AAATAAATAA AAATAAAGTT ATGGTACATT GAACCTCTGT
81601 GTTCCTTTCT CCCTTAGATA CTTTCATGGC TACCCATTTA ATTGATGTTT TTATCATCTC
81661 CAAGAGTAGG TCAGGAGAGG AATCAACCCA AGCAAAAATA GCTGATTTTC TAATTTTCCT
81721 TCAATGCCCT TTGGGGTCTT AATCCATTTG ATTTATGTAC TTTCAATTAA TCCTAACCTC
81781 GAATGTCTTC TGCAAAACATG TTTCCACAGA TGAAACTCGT CAAATGAAAC ACATTCCTTT
81841 AATTTATAGA GTTAAAAATT AGAAAAATTT TCAATTCTAT TTGGCCTTTA GATTCAGTCT
81901 TGCATATGTT TTCTCAATTT TGTTCTAGCT CTTTAGTTTT GTTTTATTCC ATCACAATTG
81961 TTCACATAGC TTAGTGGCTT AGGTCTAATG AACCATTTCAT TTGGAATAA AAATTGGCCA
82021 TTTTAAGATG AAAAAGATTC TTGCCTCAAT TTTACTTAGT TTTTGAAACT TCAATTGAGG
82081 ACACATGTTT TTCTGTACTC TTAGATTCAC TAAGTAGTGT CTTGCAAAAT TAAGTACAA
82141 AGGACAGATT AACATGCGAA AAAAAGAGCA TGCAATTTTA TTAGTATATT ACATGCACAG
82201 AGTTCCCAAA GAAAAAATAA TTGAAACCTT AAAAACGCGG TTAGACTCAC AGACTTATAC
82261 ACCATTCCAA CAAAGGAAAG GGAGTTTGCA CTTTCATGGG TGACGAATTT GGAATGTGA
82321 CAAGGAAATA AATACATGGG CAATAAAAC CATGGAAGAT AAAATGAAAG ATAGAAATAA
82381 TTGTAGTAAG GTTTGTTTTT GCAGAGTCAT CTCAGTGCCA ACCTTCCATA TCTAGTGATA
82441 AGAATTGCTC TCTTTTCCT GGTATAGCAG TTGGGGACAC TTTTACAAGG GAAATTTCTG
82501 TCACCTTCAC AAAGGAAAT TTGGGTAAAG AGAAGACAGA GACCTCTTCC TACACCTGTT
82561 GATTTTCAAT TGCTTCAGC TGAAAATAAC TTTTATGCCA AAGTAGAATA ATTTGGGGGT
82621 GACATCCTGA TATCTTCAA AACTTATATT TAATTTTACA TTAGTAATTA TATCATTTTT
82681 GATTTTAAA TTAGTTTTAT AAAATAATTT TGAAAAACGG TAATAATATT CAAATAATTC
82741 CAGAAACACT GCTGATAAGC CAAAAACATC AATGAATATT GCATAAACAA CTGATAATTC
82801 AACCATGAAA ATTTATGACA TTGTTCTTGT GTGATAAAAC TATGAGTAAC ATAAAACTA
82861 GAGGCTACTT GTAATGCATT ATTCCAACT TTCTGTTTTT TATTTATTTA TTTATTTATT
82921 TTGAGACATA GTCTCTCTCT GTCACCCAGG TTGGAGTGCA ATGGCGTGAT CTTGGTTCAC
82981 TGCAGCCTCC ACTTCCCCGG TTCAAGCAAT TCTCCTGCCT CAGCCTCCTG AGTAACTGGG
83041 ATTACAGGCA CCTGACACCA AACC CGCTA ATTTTTTTGT ATTTT TAGTA GAGACGGGGT
83101 TTCGCCATGT TTGCCAGGCT AGTCTCGAAC TCCTGACCTC AGTGATCCAC CTACCTCGGC
83161 CTCCCAAAGT GCTAGGATTA CAGGCGTGAG CCACCATGCC CGGCGCATTA TTCCAACTT
83221 TCATACACAG TGCTATCATG GCTACAAATT GAAGTATCAT ATTATACACT CCTAGGCAAA
83281 GCTCTGGATA TTTTGGCTAT ATAAGCCTGA GGGAAATGTA GTAAGGACAT TGTGGTTGAA
83341 ATTCATACCA GAGATGAACA GGCCAGTGC AAGACAGAAT TACATCACTA AAGGATATCA
83401 GAAGAGAATA GGGATTTAGG GTACAGTGGC AACAACAGTT TTGGGAACTA GCATTTTTTTG
83461 AGCACTTATT TACAATATGC CAAGCACTGT TGCTGATTAC TCTATATTTA TTTTCAAACA
83521 CATTCTTGTC ACAGCACTTT GAAGTAAGTG CCATTGTTCAT TCCCACTTCA GGGTGAAGGA
83581 CTAAAGCTTG GTGTCATTAA GGATGTAGCT AGTTAGCTGT GTGTGTGTGT GTGTGTGTGT
83641 GTGCATTTTT TTTTAAATTT AAAGTCAATA AATTTTTTATT TGAAGAATTT CACATCAAGG
83701 TAAACTTTGT TCCTCTAAAG AGCTGGAGTC AAAATGTATC TTCAAAAGAT TCATCTTCAA
83761 GTTAGCCCTT CTTAATAGAA CTGATGCTTA ATCCACAGTT GTCAGCCAC AGTTCTTTTA
83821 TTTTGACTTT TTTTTTTTTT TTTTTTTGAG ACGGAGTCTC TCACTGTCAC CCAGGCTGCT
83881 GGGCAGTGGC GTGATCTCGG CTCGCTGCAA CCTCTGCCTC CCGGGTTCAA GTGATTCTCC
83941 TGCCTCAGCC TCCTTAGTAG CTGGGACCAC AGGCGCATGC CATCGTGCTC GGCTAATTTT
84001 TGTATTTTTA TTAGAGACAG GGTTCACCTA TGTTGGCCAG GCTGATCTCA AACTCCTGAC
84061 CTCATGATCC GCCTGCCTTG GCCTCTCAA GTGCTGGGAT TACAGGTGTG AGCCACTGCA
84121 CCCGCTTA TTTTGCCTTC TTTAATCTCC ATTTGAACAT ACACATACTG ATGAAAATAA
84181 CAACATTCTT CACCAAAAAT CTTTGGGATT TAATTTCTTC AACCCTTTA CTTTGGGGTC

```

Figure 8 (Page 26 of 73)

42/162

84241 ATTTTAAGAT TAGGTGTATC TGCCTGGTTC TCAATTTGAC ACCCTTTCTC TCTAAACATG
84301 AATGAGTTCC AATCATATTT ATTCTAAGC TATCACACTC AAATATACTA CAGATCTGTG
84361 GAATATGCCA AAAGTTAAGG TGAAAAATTA AATTATTAGG TATTTTCATAG TTTTGCTAGT
84421 TTTTGATCTG TGAGTGAATA TAACTATCCT CTATGTCCTG GCACTGTTCC TCAGAAACAT
84481 AGGGTCCACA TATGTAATTT TAAATTTTTT AATAGGCACA TTTTAAAAAG TGAAAAAAGA
84541 AATCTATTTT AATGATTTGA ATCCAGTGTA ACCAAAAATT GTTCAACAA GGTATCTAAT
84601 ATTAAAATAT TGAGTTTTTA CTTTGTTATT TTACTAGTTC TTTGAAATCT GGTGTGTATT
84661 TTACACTTAA AGCACATCAC AGTTTGAGT AGCCACATTT CCAATGCTTA ATACTCACAT
84721 ATGGTTAGTG GCAACTATCT TGGACAGGAC AGCTTTTATA CTCTGGGAAG ACACAAGCAA
84781 ATACTTGCTC TGCAGCAGAA TCCAGATGTT TTCCAAGAAA AACTTTTTTC TGACCTGTTC
84841 CTGAAACCCA GGTAGTGTCT CTAATACTTT ATATTTTATT GGTGTGTCCT ATTGTAACCA
84901 CCCAACGGGC TCTCCTTGTC CACTTCCTAG ACAGAGCTGA TTTATCAAGA CAGGGGAATT
84961 GCAATAAGGA GCCAGCGCTA CAGGAGACTA GAGTTTTATT ATTACTCAA TCAGTCTCCT
85021 TGAGAATTTG GGGACCAAAG TTTTAAAGGA TAATTTGATT GTAGGGGACC AGTGAGTCGG
85081 GAGTGCTGCT TGGTTGGGTC AGAGATGAAA TTATAGGGAG CCTAAGCTGT CCTCTGTGC
85141 TAAATCAGTT CCTGGGAGTG GTGGGGTGGG GGACTCAAGA CCAGATAATC CAGTTTATCT
85201 ATATGGGTGG TGCCAGCTAA TCCATTGTGT TCAGGGTCTG CAAAATAGCT CAAGCATTGA
85261 TCTTAGGTTT TAAAATAGTG ATTTTATCCC CAGGAGCAAT TTGAGGTTTA GAATCTTGTA
85321 GCTTCCAGCT GCATGACTCC TAAACCATAA TTTATAATCT TGTGGCTAAT TTGTTAGTCC
85381 TGCAAAAGCA GTCTGGTCCC CAGGCAGGAA AGGGGTTTGT TTCTGAAAGG GCTGTTATTG
85441 TTTTTGTTTA AAAGCAAAAG TATAACTAA GCTCCTCCCA AAGTTAGTTA ATCCCAAACCT
85501 CAGGAATGAA AAGGACAGCT TGGAGTTTAG ACGTTAGATG GAGTCGGTTA GGTAAGATCT
85561 CTTTCACTGT AATAATTTTC TCAGTTATGA TTTTGGCAA GGCAGTTTCA CTGTCCACTT
85621 CACCTCACAT CAGGCCTCTG ACTAGAGGAT TCCAACAATA CTTAGGCCAG GACACCACCA
85681 TGTCTCCTTA TCCACCCTGA GGGAGTCCAA TTTCTGAAAC AAAGGAAACT ATATATGATA
85741 GTATGAAACT ATATATGAGA AGGAAATTAT ATATGATAAT CAATTTTAGG GTTATCTTAT
85801 TGATTAAAG ATATTAAAGT GTGACACTGC CTGGCAATGA TATCTGCTGG TAGTAAGAAT
85861 TTGGCGAATT TAGTGAAATT CCTGAGGCTG AACCTCCACT TCTGTAAAAT GGAGACAGTG
85921 AGATAATTTG CTTACAATG CTGAAGTAAG AATTTTACAC AATAATTGAG ACCAACCCT
85981 TCATGTGGTA CTTGGCCCGT GGAAGACTAT CAATGACAGT TAGTTTATAG TTTATACTAT
86041 TAATGAATCC TTTGTTTCAT TGTTATTTCC TTCTACACGT TGGCCTCTCT AAAAGAAGGT
86101 AATATTCAAT ACAAATAAAG TTAAACAGC TTGCAGAGTT GTCCAGGGA ACTCACTTAA
86161 CCACTGAAGT GTTCAAATTG CTTAAGGTTG ACTTTATATT CTCCTGACTA ACCTTCTCC
86221 TTCTGGTATT TCTTCTGAGA ACAGACCAC CATCCAAAGC ATCATGCAAA CAGTGGTCAT
86281 CCCAGACCAG TAATTCTCAA CTCACAGGGT GCTCCTGCAG AGATGTATTT GAATAGAGTG
86341 GTAGGATGCT GAAGAAGGCC ACGTAAATTT TGGCCAGTGA TCTGGGGCAG ATTTATCCTG
86401 AAGCTAATGA AACACAAGTG TAAGGGCCTG TACTTCCAAG GTGCAGAGAG GGGCCCTACA
86461 AATGTGTTAG TTTGTCTCTC TCTCTCTCTC TGATTTTAAA ATTTGCAGTA TTAAGGTACT
86521 TTAATCACGG ATGGTTCAGG CTGCTATTTT CACTCAATCC TCCTTTTTAT TAAATCACC
86581 ATTGTCTGAT TATGTTAGAA TCCTGATGAA AATATTTGGA ATTTGAGTAA GAGAAAGTTT
86641 AGTTGAAGAT GTATCTAGTA TGGGGATAAT AAGTTACGTG ATTTGCATAT GTGATCATGT
86701 GTACTTCATT CGTTGCCAGC CAATCTGACG TAAGAATGGC TTCAAGGAGG CCGGGCGCGG
86761 TGGCTCACGC CTGTAATCCT AGCACTTTGG GAGGCCGAGA CGGGCGGATC ACGAGGTCAG
86821 GAGATCGAGA CCATCTTGGC TAACACGGTG AAACCCCGTT TCTACTAAAA ATACAAAAAA
86881 TTAGCCGGGC GTGTTGGCGG GCGCCTGTAG TCCCAGCTAC TTGGGAGGCT GAGGCAGGAG
86941 AATGGCATGA ACCTGGGAGG CGGAGCTTGC AGTGAGCCGA GATTGCGCCA CTGCACTCCA
87001 ACCTGGGAGA CACAGCGAGA CTCCGTCTCA AAAAAAAAAA AAAAAGAATG GCTTCAAGGA
87061 ATGTTCCCTAC TGCTCACTGG AATAACTCAC CTAAATTCCT GGCAAGATGC AGGTCTAGAT
87121 AAAATGTTAT GACATCTAAG TATTCAAAAC ACATTCCAG CACTGAGAGT GAGTGTCTAG
87181 TGGAGAGTAG AAACGTATAG AGCCAGAAGC TAGTCTGGAA AGAATTCTTA CAAAGTTTAC
87241 AACTTACATG TGAAAGGAGC TTAACAGAGG ATTTTCCAAA TTTGAAACA ATCCTAAAAA
87301 CTTACTTGAC ATTACCAATA ATGTGTTTTG AAAGTGAAT ACTTCTAAGT TATGAAGAAA
87361 ACATATTATC ATCAGCCACC CTGGAGGAAA GATTGAATTC TATTTCCATT ACCTATAGAC
87421 AACATTACAA AATAATTTTC ATCTGAAGAT GGAATCAGAG TATTCAGTCA AAATACAGG

Figure 8 (Page 27 of 73)

43/162

```

87481 AAAATATACT TGGTAGTGTC ATATTCAGAA GTTAATAAAA TATGCTATTT TCTGAATTTT
87541 GTGATGGCTG TTGTTTTGTC AGCTTTTATA AAATTGGAAT TTGATTTTAT TTTCCCATTA
87601 TAAATTTATA TTTACAGTCT GCAGTACTTT TGCATTTTAA ATTTTACATT ATAGTTTTTA
87661 ATAGTTAACA AGTTGTAAAA GGTTTGATCC CCAGAAAACC TTGATCTACC CCATCAGTTA
87721 AGTATACTAA TATATTTAGA AAATGGATGA AATCAGCATT TGAATATTTT TAAATATTTA
87781 TTTAAAGAGG ACATGGGTAA AAGAGCTTTG CAGTTGCCAC CCTTCATTCT CAAATTCCTT
87841 GGATAAGGAT GACCGCATAA TCTTTGGATG GTCATACGCA AGTCTTGTGT ACTTGTTACA
87901 TAAATCTATT TAGTGGACTT TTGGCAGTGT GTACTGAGGC CAGTTTCTTC CACCTGAGCT
87961 CTGACTCCAC CTCCAGCAGC CCAAAACCAA TACTGAATTT TGGGGTCAGC TATTGTTTTT
88021 GTGGACTTAG GTAACACAC ACACATTGTC TTTATGATAG CTTTAATAAT ACTGCCATCA
88081 GAACATAAAT TGTACGTGG ATTAAGAAGG GTGACGGTGG TGTCCCGAGG AGCCTTTCAA
88141 TATGTAAAGTA TTTACACATA TACATGCTAA AAAGACCCCT AGGAATTTT TAACAAGGGC
88201 AAAACAGTAA CTCAGCTTGT TTTCTCGCAG TAAAACCGGT TGAAGAGGCC TGATAGACTT
88261 GTCTGCAGTT ACAAACCTTG TGTGTAGTTA TCACCTTTAT ATCTCTGGA AACTAACATA
88321 GACAACCGAA TGGGTTACAA TGTTTTTTAA GTGAAATTTG GAGTGGCTCT GAAAAGAGCC
88381 TTTTCAATGA GGAAGAAACG GGCAGACTTA TGCCCTTTCC CCACGGATGC GACGTGAGCC
88441 CTGGATATCT TTGGGCATGA TGGTGACGCG TTTAGCGTGA ATAGCGCACA GATTGGTGTC
88501 TTCGAAGAGT CCCACCAGGT AGGCCTCACA AGCCTCCTGC AGCGCCATCA CCGCAGAGCT
88561 CTGGAACGCG AGGTCGGTTT TGAAGTCCTG GCGGATTTCT CGCACCAGGC GCTGGAACGG
88621 CAGCTTCCGG ATCAGCAGCT CGGTGGACTT CTGGTAGCGA CGGATTTTCG GCAAGGCCAC
88681 GGTGCCCGGG CGGTAGCGAT GAGGTTTCTT CACGCCACCG GTGGCCGGAG CGCTCTTACG
88741 GGCTGCTTTA GTAGCAAGCT GCTTGC CGCG AGCTTTGCCG CCGGTAGACT TGCGAGCTGT
88801 TTGCTTCGTA CGAGCCATTT GCAATGAGAG CACACACAAA AGTGTAAGTA ACTGAGAGCA
88861 AGTGGCCTTT AAATATAGTG AGAAACATTC TGATTGGTCC TGTAATATTT CAAAAGTCCC
88921 GCGCGATAAA ATCATTGGCT GAAGAGTGAC CAGACTGATT GGTTCAATAC TAGACAATCT
88981 TATTGGATGA GTTGCCCCAC CGCCCATCCT GTCCTTTTCG TTTCACTTAT CTGCAGCGAC
89041 AAATGTCTA AAATCTAGT TCATCCAGTC CCAAAGAACA GAGTGATATA CAAGGTATCT
89101 AAGGATTTTT AAAATGTAAA TTCCGATTCA GTAAGTTTGA GTGGGACTTG AAATCTGCA
89161 TTCCTGACAG TCTCGCAAGT TATCAATGCT GGTGAACACT CACTAAACCA CCAGAAACGT
89221 TCAGACTCAT GTCGGGAAAT AACGCTTATA TTCAGAGAAT GAGATTCCAT GCTATTTTGT
89281 TACTGGCGAA CAGCAAGTTT CCTTGCCCTT TGTTTTCTAA GTCCAAGTCA CATTCCCACC
89341 CTGCCTGTTC TCAAAATGTC TTATTTTGGT TGGCCTTAAG TTTCACTTTG TATACTCTAA
89401 AATGTACTTT CTAAAGGAAG GTGTTATTTT CTCGAACTT AACTTTTTAA CACCATTAGG
89461 CTAGGGGGGC GGTGGCTCAC GCCTGTAATC CCAGCATTTT GGGAGGGCGA GATGGGACGA
89521 TCACTAGAGG CCAGGAGTTC AAGACAACCC TGGCTAAAAT GGTGAAACCC CGTCTCGCAT
89581 AAAAATACAA AAACATAGCT GCGCGGGTAG CAGACGCCTG TAATCCCAAG TACACAGGAG
89641 GCTGAGGCAT GAGAACCGCG TGAAGCGGCG GGGTGGAGGT TGCAGTAAGC CGATATCGCG
89701 CCGCTGCACT CCAGCCTGGG TGACAGAACT AGACTGTCTC AAAACAAACC AATCCAAACG
89761 AAAAGCAAAA AATACCCATA CAGAAGCAAG TTATCATCCT TTCTTGTGTA ACTATGGACG
89821 GCTCTGAAAA ATGCCGTTTC AAGTGTAAGC TACGTTTTCT GATTTGAGTG TTTACTTGAC
89881 CTTGGCCTTA TCGTGGCTCT GTTATTTTGG CAACAGGACG GCCTGAATAT TGGACAGGAC
89941 GCCTCCCTGA GCAATAGTGA CGTTGCCCAG CTGCTTGTTG ACCTCCTCGT CGTTTCGGAT
90001 GGCCAGCTGC AGGTGGCGGG GGATGATGCT GCGGGTCTTG TCACGTATGG CGCTGCCAC
90061 CAGTTCTAAG ATCTCGGCGG CCAGGTATTG TAAGTACACT GGCGACCCG CTCCGACCGG
90121 CTCAAAATAA TTGCCCTTTC GAAAAAGATG ACGGACTCTG CCCTATTGGG AACTGCAAGC
90181 CCGGTAGCGA CGAACAAGTT TTTGCTTTAG CTCCATTTTC CACGTCCGCA AATAGCGACC
90241 TATGAAAGCA GCGGAAAACG GTGAAAGACA AGCAAGCTGG AATGGCGCCT GAACAAATCC
90301 TTTTATACAA ACTGCAAGGC TGCAATAGGA AGCTATCCTA TTGGTCAATT ATGTTTGGTG
90361 CTTTATCCAA TAGAAAAAGA TAACATAAAT TCCATATTTG CATAAACCCC ACCCTCAGT
90421 GAAACCGTGT TTCTTTTGTC CAATCAGAAG TGAGGAATCT TAAACCGTCA TTTGAATCTC
90481 AGGACTATAA ATACATGGGC TCTGAACTGT TCTCTGTACT ACTCTGTAGT GGAGAGTGTT
90541 AGTAGCTTTT CTATTCTGTT TAGGAATAGC AATGCCTGAA CCCTCTAAGT CTGCTCCAGC
90601 CCCTAAAAAG GGTCTAAGA AGGCTATCAC TAAGGCGCAG AAGAAGGATG GTAAGAAGCG
90661 TAAGCGCAGC CGCAAGGAGA GCTATTCTAT CTATGTGTAC AAGGTTCTGA AGCAGGTCCA

```

Figure 8 (Page 28 of 73)

44/162

90721	CCCCGACACC	GGCATCTCAT	CCAAGGCCAT	GGGGATCATG	AATTCCTTCG	TCAACGACAT
90781	CTTCGAGCGC	ATCGCGGGCG	AGGCTTCTCG	CCTGGCTCAC	TACAATAAGC	GCTCGACCAT
90841	CACCTCCAGG	GAGATTGAGA	CGGCTGTGCG	CCTGCTGCTG	CCTGGGGAGC	TGGCTAAGCA
90901	TGCTGTGTCC	GAGGGCACTA	AGGCAGTTAC	CAAGTACACT	AGCTCTAAAT	AAGTGCTTAT
90961	GTAAGCACTT	CCAAACCCAA	AGGCTCTTTT	CAGAGCCACC	TACTTTGTCA	CAAGGAGAGC
91021	TATAACCACA	ATTTCTTAAG	GTGGTGCTGC	TGCTATTCTG	TTTCAGTTCT	AGAGGATCAA
91081	CTGGAATGTT	AGCGAAGACA	AGTTTTAGAG	CCAAGGTTAA	CTTGACGGG	GCCGTGCGCG
91141	GTGCCTCTTG	CCTTTAATCC	CGGCAATTTG	GGAGGCCGAG	GCGGGCGGAT	CACGAGGTCA
91201	GGAGATGGAG	ACCATCCTGC	TTAACACGAT	GAAACCCCGT	CTCTACTAAA	AATACAAAAT
91261	AATTAGCTGG	GCGTGATGGT	GGGCGCCTGT	AGTCCCAGCT	ACTCGGGAGG	CTGAGGCAGG
91321	AGAATGGCGT	GAACGCGGGA	GGCGGAGCTT	GCAGTGAGCC	GAGATCGCGC	CATGGCACTC
91381	CAGCCTGGGT	GACAGAGCGA	GACTCCGTCT	CAAAAAAAAAA	AAAAAAAAAA	AATTAATAAA
91441	ATATGAAGTT	TTGAAGCAGA	AATTATTTTG	TCGTATGTTT	TTTCATAAAT	TTTTTGCTTG
91501	CCTGCCTTCT	TCCTTTGTTA	CAGAACTCCA	ACACTTACCC	AAAGGTAGCT	GTTGGGTGAG
91561	GGTTTCTGTA	CTATAGTCCC	TTCTGTGGTG	GCCAGAAAATA	TGTTACAGGA	AAGAGGTCCC
91621	CATCCAGACC	CCAAGAGAGG	GTTCTTGGAT	CCCGCGCAAG	AAAGAGTTCA	GGGTGAGTCC
91681	GCAGTGCAAA	GTAAATGCAA	GTTTACTAAG	AAAGTAAAGT	GGTGAACGA	CAACTACTCC
91741	ATAGACGGAG	CAGGACATTC	CCGAAAGTAA	GAGGAGGAAG	GCATCCACCC	TAGGTACAAT
91801	ACTTGTATAT	ATGGGGAGAT	GTGCTCTGCT	ACAAGTTTGT	GATAAAGGAT	TAATTTTCTT
91861	AGTTACTATA	TTTTGCAAGA	ATCAACATTA	TTATCTTTAA	ACAAAATTAA	GAATGCCTTT
91921	GTTCTCCAGA	TATAGGGATA	TCTGGACACT	CCTAAGTCTG	AGTCTGTTTA	GTAAACATTA
91981	TTTATTTGTT	CCCTTAACCG	TAAACATCTA	GAAGCTAGGA	ATGACTGACT	TTCTGGGAAT
92041	GCAGCCCAGA	AAGTCTCAGC	CTCATTTTCC	TAGCCCTCAC	TCAAAATGGA	GTTACTCTGG
92101	TTCAAGTAAC	TCTGACACTT	TTCTTCTCTT	TTTTTCTTCT	TTTTTCCCTC	CTTTATTTTT
92161	TATTTTTTAT	TTTTGAAATA	AGAAATCAAG	AATACTTGAT	GTTTCATCTA	AAACAATACC
92221	CATAATTGAT	AAGCCAAAAC	AAAAACCTAG	GTCTTCTAAC	TCAAAACTAG	GATGTTTTGC
92281	TGTCTCTGCT	GATACTCGGC	TGATCGTTAA	TAGGTAATTA	ACAAACAAGC	CTTGCTATGT
92341	CCCCCTCAGT	TTATTACCAT	TAGATCATAT	GCCTACTGTC	AATCATATTA	ATCCACAACCT
92401	ATGCATTTCA	CAAACTTGC	CATAAAAATT	CACAGGTTTC	CCGCTTCCCT	CGAGTTTTCA
92461	TTTCCGAAGG	GTCCCATGTA	ATATAAACT	TATATTAAAT	ACATTTGTAT	GCTTTTCTCT
92521	TGCTAATCTT	TTTTTTTTGTT	TTTTGAGACT	GAGCCTTGCT	CTGTCACCCA	GGCTGGAGTG
92581	CAATGGCGCG	ATCTCGGCTC	ACTGCAACCT	CCGCTTCCCA	GGTTCAAGCG	ATTCTACTGC
92641	CTCGCCCTCC	CGAGTAGCTG	GGACCACAGA	TACGTGCCAC	CATGCCCCGC	TAATTTTTGT
92701	ATTTTTAGTA	GAGACAGGGT	TTCAACCGTG	TGGCCAGGAT	GTTCTCAATC	TCCTTACCTC
92761	GTGATCCGCC	CGCCTCGTCC	TGCCAAAGTG	CTCGATTAC	AGACGTGAGC	CACTGCACCC
92821	GACCAATCTG	TCTTTTTGTA	GAGGGGCCCT	AAGCATGAAC	TTACTGATGG	GTGAGAAAAA
92881	CAGAATTTTC	TTTTCCCTTA	CAATATAAAC	ATTAATTGTA	ATGTTATCAT	TCAGGACATT
92941	TTGGTGACCA	ATCTTACAGA	AATTTTATCT	TGTGCAAGTC	TATGCAAACC	AATATGTAAA
93001	TCTTCTATAA	GTGAGATTGT	ATTTCACTTT	TCTAGTATCC	TTTTAAATTA	ATAAAAGAGA
93061	TTCTAATGAT	TATTTTCATT	ACTGCATTTC	ATTGTAGGGA	AGTAGATAAT	TGCCCTTTAT
93121	TCACTGACCT	TCGCTTTTTA	AAAAATTTAA	CCATGTTACC	ATGAAAATGC	TTTTCAGTAT
93181	TTCTCTACAC	ACAAGATTGC	TGTAAGGGCA	AAAATAGAGA	TAGGAATCAT	GCATCCATTG
93241	ATATACATAT	TTTGATTTTT	AATACATGTT	ACCAAGTTGC	CTCCTGAAGG	TCTGTTTACA
93301	CTCTCACCAA	CAGGGTGTTT	TTTCTGACT	TCCACAAATG	CTCTGAACA	GTGGGTGTGT
93361	TAGTCTGTTT	AAATTGCCGA	CATGAACAAT	TAAATCTCAT	TGTTGTTTTT	ATTTTTAAGA
93421	CAATTATTGT	TTGAGACTGC	ACATTTTGAT	AATAACATTT	CTTCTATTAT	GGTTTGATTA
93481	CTCATGATTC	TTGCCCATTT	TCTTTTGCGA	TGTTGCCCTA	TGTACATTAT	TTTAAATAGA
93541	TAGCTCCATG	TATTAAAAGA	TTATTAAAGT	TGAGGGCCTA	TGATATGTCA	GTTACATTTT
93601	TAAGATTTTT	TTTTTTTTTT	TTTTTGAGAC	GGAGTTTCAC	ACTTGTTGCC	CAGGCTGGAG
93661	TGCAATGGTG	CGATCTCGGC	TCACCGCAAC	CTCCGCTCC	AGGGTTCAAG	CAATTCCTCT
93721	GCCTCAGCCT	CCCCAGTAAT	TGGGACTACT	GGCAAGCGCC	ACCACGCTTG	GCTAATTTTG
93781	TATTTTTTAT	AGAGATGAGG	TTTCTCCATG	TTGGTCAGAC	TGGTCTCGAA	CTGCCGACCT
93841	CAGGTGATCC	ACCCGCTCTG	GCCTCCCAAA	GTGCTGGGAT	TACAGGTATG	AGCCACTGGG
93901	CCCGGCCACA	TTTCTAAATT	CTTTATAAGT	ATAAATTCAT	TCAATCTTCA	CCAAAACCTA

Figure 8 (Page 29 of 73)

45/162

```

93961 ATGAAGTGTG AGTACTATTA TTATCATTGT TTTACAGATC AAAACAAGTA ATACAGTCAC
94021 TTACTGAGTT CTATACACCT GGTAATTTTT TTGTTTCGTT GTTCTATCAA TTATTGGGGA
94081 AGGGGTGTTG AAATCTCTAC CTTTAAATCA TGTATGTGTC TATTTCTCCT TTCGGTCTA
94141 TCAGGTTTTG CTACACATAT TTTGCAGTTC TGTTATTTGG TGCATATACA TTTAGAATTG
94201 CTTGTTTTTC GTATTGGATT GACCCTGTTA TCATTATGTA ATATCCCTGT CTGTTCTTAG
94261 TAATTTTCTT TGCTCTGAAA TATACTTATC TGATATATCA TCCAAAAGAC CACCAGGATG
94321 GCTAAAGAGT AGAAAGGAGA GATTTACTGG CAATACTAAT TTGCAAGCCA GGAAGAGATG
94381 GTCCCAGAAC CTGCCAAAAT TACTCTCTCT TTGGGGAGAA GGAGCAGGTT GGTTATTTTT
94441 ATGCCTCATA GGCTATATAT TACACAATAG AGTCATACAT ATTTAGCACG TTTGGGGGGA
94501 CAGCTATATA TATTATGAGG GGTGCCAAGT GCATTACAA TGGATAAACA CGTGTAATAT
94561 ACCTCCCATG TTCAC TTCG GGTAAATTT TGGTTAAAT GAGGTAGAAT TTAGGTCTTT
94621 ACATCACAAG GTGAACATA GGAACAAAGT TTACGTGCTG CCTCTAGCAG CTGGCTGAAA
94681 ATGGCTTAAG GTCTACAATT ACGTGTAGA ATAGAATGTG TGTCAAGGCG GTCCTCTGTC
94741 CAATCAGAGT TGTAAGTGGAC TGGACTGTAA ATCAGAGTTA GGAGGGCTTC TGATAGCTCC
94801 TATAGTTAAG GAATTTAGCA AGTGTGAGTT TTTTGGTAGT CTTTGGAAAT TAGGAATTTG
94861 CCATGCCAGC CAAGCCATGA ATGCTCTACC AGTAGGTAAC TTTGTTTGCT TAATCTTAGA
94921 GTCTGTCTTA GTTGGTATAG GGGCATCTAT TTTGGTCTTT CAGATCCCAG ATATTATTAA
94981 TACAGATACT CTTGCAGTTT TGGGCTGATG TTTATATGGC TTATCTTTTT TGCAGCCTTT
95041 AATTTCAACC TCGCTTATGT TTATATTTGA AGTGAGATTC TTGCAGACAG TGTACAGTTG
95101 TTGTTTTTTT TTTTTTGAGA TGAATTTTCA CTCTTGTTGT CCAGGCTGGG GTGCAGTGGC
95161 ACAGTCTCAG CTCACTGCAA CCTCCGCTC CTGGGTTCAA GGGATTCTCC TGCCTCAGCC
95221 TCTTGAGCAG CTGGGATTGC AGCCATGCGC CACCACACCC GGCTAATTTT TGTATTTTTA
95281 GTAGAGACAG GATTACCAT GTTGCCAGG CTGGTCTCGA ACTCCTGACC TCAAGTGATC
95341 CGCCAGCCTC GGCCTACCA AGTGCTGGGA TTACAGGTGT GAGACCTCGC GCCCAGCCAA
95401 ACTGTTTTTT TATGGGTGTA TTTATACCAC ACACATTTAA TGCAATTATT GATATCTTAG
95461 GGCTTAAGTT CATGAAGGGT AGTGTGGGAA CCATAGTCTC TTGGCCCACT AAATGTTTGC
95521 CAGAAATCAC TGACAAGGCA GATTGATTAA TAGGTGAAAA GGCATTTTAC CTATTGTTTA
95581 ACGTGTCTAT GTGGGAGCAT TCAGAATTAA TTACCTAACT TCCCAATGAG TTATAGATGC
95641 TTATATACCA TTTTATAGATC ACAGAAAGAA TTGGGGCTTA GATTCTGGTA AAACAGGTTA
95701 TGGGAGGCAA AAGAGGTTTG GCTTGCAAAG GTGGCCTTGT TAGGTAGGTG AAGCCTCCCT
95761 CAGAAAGAAC AGATGGTAAA TGTTTCTTTT ATGATTTTTA AGTGTGAGAC TCTCAGTCTC
95821 TCCTGGATCT GGGGAAAGGT ATAGAAAGGT GAGGAGGCAT GGCTGCATTA ATGGAGATTC
95881 TCTACAGATG TAAATTTTTT CCCATTTAAG GCAGCTTTGC AAGCCCATTT CTGCCTGCTG
95941 GCCAAGCAGC AGCCATTTCA AAATATGTCA AAGAAATATA TTTTGGGGTA AAATATTTTG
96001 ATTTCTTTTA GACTGGTGGC CTTATAAGAA AAGGAAGAGA CACCTGAGCT GACACACATA
96061 CCCTTGCTCT CTCAACATGT TATGATGCAG TAAGAAGGCC CTCACCAGAT ACTAATTCCA
96121 TGCCCTTAGC TTCCCAGGTT CTAGAACAGT AGGAAATAAA TTTCTTTTCT TTAAGTTA
96181 GCCAGTCTGT GGTATTCTGT TATAGTATCA CAAAATGGAC TAAGTAACTA TATTATGATC
96241 ATCTTACATG ACTGATCCCT CCTACATCAT ACACATACAC AGGCCACATT TGGACATTG
96301 TTAGAGGTTC CTCTGCCCAG TACAAATGTA CTACAAATTA TATATGTATT TTTAAATTTT
96361 TGAGTATCTT CAATAGTATA TTTTCGTTAA CTTTGTAGT CAAAATGTCA TTATAACATG
96421 TATTCAATAT GCATAATTAT TAGTCAGATG TTTTACATTC TTTCTTCATA CTAAGTGATA
96481 TGGTTTGGAT ATTTGTCCCC TCTAAATCTC ATGTTGAAAT GTAATCTCCA ATGTTGGAAG
96541 TGAAGCCTGG TGAAAGGTTT TTGGATCGTG AGGGTGAACC CCTCATGAAG CGCACTCTTC
96601 AGGGTAATCA ATGGGTCTC ACTTTGAGTT CACAAGAGAT CTGGTTCTTT AAAAGAGTGT
96661 GACACCTCCC CCATCTCTCT CGCTCAGCTC TCACCATATG ATATGCCTAC TCCCTCTTCA
96721 CCTTCCACCA TGATTGGAAG TTTCTGAGG ACTTGCCAGT AGCAGATGCC TGCACCACAC
96781 CTCCTGTACA GCCTGCACAA CCGTGAGCCA AAAAAATTA CTTTTCTTTA TAAATTAGTC
96841 AGTTTCAGGG ATTCCTTAT AGTAATGCAA GAACGAACTA ACACACTAAG TCTATTTTCA
96901 ATTTACAGAA TAGCTCAATC TGAAGTACCC TTTTTCAACT TCACAGTAGC TACTTGTAGC
96961 TAGTGGGCAC TGATTTGGAG CGTGTTCAAG GGTGAATTGT ATTATGCAAT TAACAGATTT
97021 TTTTTATTGT TTTTCGAAAC CACGAGGCAT AGATTGTCTT ACTTTCTCTG CTCCTGGTGT
97081 TGGAGTTGTT ATTTGGGAAAC AACTTATTTT CCTCTTATAT TTATATGGAA TAAATAACCC
97141 CCAATATTTT CCTCCCCAAT ATCTGCCTTT TGTATGTTTT TTGAAGGCAA GTGCCTAGAA

```

Figure 8 (Page 30 of 73)

46/162

97201 TTTACTGTTT TTGAAGCACT TACTGAAAGG ATTGCCATCA AGTTGTTTTG CTAATAGTAC
97261 ATGCCAGGCG CTTGTTGGTT TGCTTAATTC AAGGTAACCT GGATGAGAAG AAGAGTTTTT
97321 CTCATCCATG GCTCAGTGGA GTATAGATTA CTGATATTGT GACTGGATGT ACTCCTGCTT
97381 TCTAGTCTGA GTTTTTGAAG CTACCCTTAA TCTTGGTTTC AATTTTATCT AGCCCTGTAC
97441 ATATCCAAGG CTCTTTCCAA AATGGTCTAC GATTTGTTTA GGAAGTTAGA ATAGCTGTAC
97501 TTTCTGAACC ACGGTTCCCTG ACATTTTCTG GACTTCAAAC ACATCCAGCA TTTTATCGAA
97561 GTATTTATCC TTCCTACTTG GCTGGCTTCT TCCTTGCTT CAGGTCTGAA TTCAAATGAC
97621 ATTCTCCTGA TGAAACTTTC CATCCTTATT TCTATTCTTT TTTCTTATCC CCTTTCTTTA
97681 TTTTCTCTCA CAGCACTCAT CACTTATCTC TACATTTTCA TTATGTATTT ACCTTATTGT
97741 GCACCTCCCA CTACAAGACA AGTAGCACCG TAAGGAAACA GGTTGTCTGC TTTTCTACTG
97801 CTATGCTCCC TGCACCTAGA ACACTCTCTG GCACTTAGCA GGTTTTAGT AAATATATGC
97861 TGAACATAA ATGCTGGATA TACATCTCCC TCATGAACTC TCTAAATCCT TCTAATTTAC
97921 ATTGATCAAT CTTCTTTTCC ATGTGCTTTT GTATGATTTA TTGCTCAAAA TCTTTATTTT
97981 ATATGCAGAA CGTGCACCTG TATTTAATCT TCATGTACGT AAGTCCTCCC TTCTCTGAGT
98041 ATAATCTCTT CAGGGCACTA TCTGAGATAA CTTTTTAACA TCTCCATCAT GAATCTTGTA
98101 CCTTTTCAAA GAAAATGAGC CAGTGATTAC TGATGTTTAC GGCTATTGTT GAGGCTGAAG
98161 ATCATTATAA TTTTGAAAAG GGAAGTTGAA TATTGTGAAG GGAAAGATAA CACTAGAGTC
98221 AGAAGACTTG GGAGAAGGCA AAAAACAAAC TAAAAATGAG CACTTTTAGT CTCCTGACAG
98281 TTTCTCTGAA TCAAATCCAT AGTTCTGTGA CAGCGTTGGC TTAGAAGCAG ATTTTTTTTT
98341 TTTTTTTTTT TGAAATGGAG TTTGCTCTT GCCCAGGCTG GAGTGCAGTG GCACGATCTC
98401 GGCTCACTGC AACCTCTGTC TCCAGGGTTC AAGCGATTCT CCTGCTTCAG CCTATGGAGT
98461 AGCTGGGATT ACAGGCTCCC ACAACCACGC CCAGCTAATT TTTTGTATTT TTAGTGAAGA
98521 CTGGGGTTTC ACCATGTTGG CCAGGCTGGT TACGAACTCC TGTTCTCAAG TGATCTGCCC
98581 GCCTTGGCCT CCCAAAGTGT TGGGATTACA GGCATCAGCC ACCGTGCCCCA GCCAGGAGCA
98641 GATTTTTTTT CACTCATGTT TCTTTTCTCT TCTGTCATCC TGTTTCAGTA TAAGCAGACC
98701 ACAGATAGAA GTAGTAGATA CCTCAGAAAT TCCTGGAATA ATTAATCCAC GTTCATCTGT
98761 ACTCCATCTG CTCCTATCTC ATGGAATATA AAAGGAAAAA CACCAAGATT TCCCTAGGCA
98821 ATCTGTCTTG ATTTTAGGTT CCTCAACAGG AGAGCCAGAC AATGGCTGTA ATAATATTGT
98881 CCCGGCCAAG GAAAACTTC CCCTTTGCC TCCCAAGGTT TATGGAAAAT TACTGGCAAA
98941 ACACAGATTA ACTGGAGAAA AGGCATATAT ATTTATTTCA TCACAATTTT ACAGGAGATT
99001 TTAGAATTAA GACTGAAAGA TACAGGGGAA ATTGCCATT TTTATGCTTA GGTTCAACAA
99061 GATAAACAGC TGTATAGGGT ACGATCTAAT GCTAACAGAC TGAGTGGGGA AGCCCCGCAA
99121 GGCTTGTCTG TCAAGATTCT TCTTGACCTC TCAGTGCAGC ATTTCTTCCT TCTGGTTATA
99181 GGACAAGACT CTCTTTTAGA ATGGGGGGTC TTATGACCTA CAGGCAAACA AGGTAGGTTA
99241 GAGTAATACT TTTAGGTTTT ATGGCTGGTT CTAGGGAAAA GGAGTTCTGG TTTGTATGGC
99301 CTACCTTGAG GAGGAATTCT GGTTTCTATG GCTAGACTTT GGGGAGAATG GGACTTACAG
99361 ACAGGAAGGC AGAAGGTGGT CAGTGAAACA CTTTTATAAT CATAATCCCA TTTTGAGTAT
99421 TTCTGTGTTA TGGAATGTTT GTTCTCTCAT TTCCTGAAAG ATTCCAGAGA CTCCTCATTC
99481 AGTGTTGTGA AAAAGTTCAG GAAATGCAAC TCAAAAATGT GCCACTTTGT TACGCTGATT
99541 TCTTTGAACT GAGGGCACCT AGGAAACAGT AAATTCAAGG AAGGGCTTTC GCTGAACTCT
99601 AATCAAAAAT TTGAAAATTA AAAAAAATT CAAAAAGGAA TTTAGTTGTT AAGATTCACT
99661 TCCCTGGGGA ATCTCATCAA CCAGAGAAGA TTAAGTGTAT CACAGGAGAG GAGACTGGTG
99721 GTTAACACCA TCTAAACAGA CTTTGTGACA GCTGTCACCT ATTCTTTGAA ACACCCATTT
99781 ATTTTCTCC AAAATCATAT ACTCTCCCTT AAGTTGCCTA CATCCCCCTT CTTTCTCCCT
99841 TATGAATCAA GAGAGCTTAT AAGCTTCTAC AGTTCACTGG GATTTGGGGT ATTGCTTTTT
99901 CTTCCTCTCC ACTCCCCCTC CCCTTTTTTT GTCTTTGAGA CACAGTCTTC TGGCTCTGTC
99961 GCCCACGCTG GAGTGTGGTG GCTCTATGTG AACTCACTGC AACCTCCTCC TCTCGGGTTC
100021 AAGCGATCCT CCCACCTCAG CTTCTCGAGT AACTGGAAC ACAGGCGTGC ACTACCAAGC
100081 CCGGCTTTTT TTTTCTTTT TCTCCCCGT TTCTTTTTTG GTTATTTTAC TGGAGACAGG
100141 GTTTCTCCAT GTTGTCCACG CTGGTCTCGA ACGCCTGACC CGCCGTCCTC GGCTCCCAA
100201 AGTGCTGGTA TTACGGGCAT GAGCCACTGC GCCCGATTG AAGGACCTCT TAAATATCTA
100261 TTTAGAAATT GGTCCGAGTC CACTCCTTTC CAAAAACATG AGTCACAATC CGGGAAAAGC
100321 ACGAGCGGCT GAAAGTCAAA ATAACCAGAA CAAAACCTCC ACTCATGCTT AAAAAAGGTA
100381 TTTTGACAAA ATCCTAATTC GGCCAATTAT TATTAGTATT CAAGTCGAAG GCTCGTCAAG

Figure 8 (Page 31 of 73)

47/162

100441	CCAGACTGGG	GATTGGGTCA	AACATAAACC	TTACACCAGA	CGGAAGGATT	ACATGCAAAAT
100501	GAAGGATGCA	GATTCTGATT	TCCCATTGGG	TATTTGACAT	TAGCCAATGG	GAGAATTCCT
100561	CACAGCCTAC	CTCCAGTCAG	TATAAATACT	TCTCTGCCTT	GCGTTCTAAT	GTAGTTTCAT
100621	TACATTTTCT	TGTGGCGATT	TTCCCTTATC	AGAAGTAGTT	ATGTCTGGTC	GCGGCAAAACA
100681	AGGCGGTAAA	GCTCGCGCCA	AGGCTAAGAC	TCGGTCTTCT	CGTGCAGGTT	TGCAGTTTCC
100741	TGTGGGCGGA	GTGCACCGCC	TGCTCCGCAA	AGGCAACTAC	TCCGAGCGCG	TCGGGGCTGG
100801	CGCGCCGGTG	TATCTCGCGG	CGGTGCTTGA	GTACCTGACC	GCCGAGATCC	TGGAGCTGGC
100861	GGGCAATGCG	GCCCGCGACA	ACAAGAAGAC	CCGCATCATC	CCGCGCCACC	TGCAATTGGC
100921	CATCCGCAAT	GACGAGGAGC	TTAATAAACT	CTTGGGGCGT	GTGACCATCG	CGCAGGGTGG
100981	CGTTTTGCCT	AATATTTCAGG	CGGTGCTGCT	GCCTAAGAAA	ACTGAGAGCC	ATCATAAGGC
101041	CAAGGGAAAG	TGAAGAGTTA	ACGCTTCATG	CACTGCTGTT	TTTCTGTCAG	CAGACAAAAT
101101	CAGCCTAACA	GCAAAGGCTC	TTTTTCAGAGC	CACCTACGAC	TTCCATTAAA	TGAGCTGTTG
101161	TGCTTTGGAT	TATGCCGCCC	ATAAAGATGT	TTTTGAGGTG	TTTTTAATGG	CTTTGAGTGT
101221	GGCACTTTTA	GTAATTTGTC	CTGCAGAAAT	TAGATCCATA	GAAACCTCAG	GAATTCATAG
101281	TATGTGGGAG	AAGTGCCATG	CAGCACAAAA	CATGTTTACA	GGGGTGATTG	CGCTTAAGTT
101341	TCACACACAG	CAGTTACTAC	ATTTTtagagg	AAGGAAATTA	TACCCATGAG	TGCATTCCCTA
101401	ACTATCTTGA	ATGGAAGTGT	TAAAACCCGC	ATGCCCCACA	CAAGTTTGAA	TATGTCATAC
101461	CATTTGCTGT	AGCAATTAAT	GGCATAcaca	ATTGAGAGCA	CACACATTAC	CACTGAACAT
101521	TTGAGTATGT	ATTTCCCAAA	ATGAGCTTTT	TTCCAGTTTG	GGGATGTTTT	GCTTTGTTTT
101581	GGGGTGGAGT	CTCCCTCTCG	CCCAAGCTGC	AGTGCAGCGG	CGTGATAACA	GCTCACTGTA
101641	ACCTCGAACT	CGGGCTCAAG	CGATCCTCTT	GACAGCCTTC	TGAGTAGCTG	GGATTACAGG
101701	CGAGAGCCGC	CACGCCCGGC	TAAGAGCATT	TTTCTAATTG	CCCACACTTC	TTATGCGACA
101761	CCCAGAAAAA	TACAATTTTA	AATAAAGCGC	ATATGCAAAT	TTCCCTAATC	GTCTCCAATA
101821	TTCTCTGATT	TCTTTTTTAT	ATTTTAACTA	GAAACAATTG	GAGGTTTCCG	CGTTGCTTTG
101881	TGTGGTTGTA	AATTTTAAGA	CTTCAGGAAA	CTTTTCCAGT	ACAAGACTTG	TCCACAGTGG
101941	ATATAGCAGC	TAAGGGGTGA	ACAAAATGAC	GTCAGAGTAG	CTACGGTAAT	GGGCAGGAGC
102001	CTCTCTTAAT	CTGCAACCAG	GCACAGAGAT	GGACCAATCC	AAGAAGGGCG	CGGGGATTTT
102061	TGAATTTTCT	TGGGTCCAAT	AGTTGGTGGT	CTGACTCTAT	AAAAGAAGAG	TAGCTCTTTC
102121	CTTTCCTCCA	CAGACGTCTC	TGCAGGCAAG	CTTTTCTGTG	GTTTTGCCAT	GGCTCGTACT
102181	AAACAGACAG	CTCGGAAATC	CACCGGCGGT	AAAGCGCCAC	GCAAGCAGCT	GGCTACCAAG
102241	GCTGCTCGCA	AGAGCGCGCC	GGCTACCGGC	GGCGTGAAAA	AGCCTCACCG	TTACCGCCCCG
102301	GGCACTGTGG	CTCTGCGCGA	GATCCGCGCG	TACCAAAAGT	CGACCGAGTT	GCTGATTCGG
102361	AAGCTGCCGT	TCCAGCGCCT	GGTGCGAGAA	ATCGCCCAAG	ACTTCAAGAC	CGATCTTCGC
102421	TTCCAGAGCT	CTGCGGTGAT	GGCGCTGCAG	GAGGCTTGTG	AGGCCTACTT	GGTAGGGCTC
102481	TTTGAGGACA	CAAACCTTTG	CGCCATCCAT	GCTAAGCGAG	TGACTATTAT	GCCCAAAGAC
102541	ATCCAGCTCG	CTCGCCGCAT	TCGCGGAGAA	AGAGCGTAAA	TGTAAAGTCA	CTTTTTCATC
102601	AGTCTTAAAA	CCCAAAGGCT	CTTTTCAGAG	CCACCCACTT	ATTCCAACGA	AAGTAGCTGT
102661	GATAATTTTT	TGTTGTCTTA	ACAGAACAAA	TTTCTAAGGA	CCCCCCCCGA	AAGCATTAGA
102721	CTATGGTCTT	AAAGTTGATT	AACAGAAATA	ACGGTTTGGT	CAGTCTTGCA	GTGTAGGTGA
102781	TTTCTGACCT	TATTAAGGTG	CTATTTGGAG	AGAAGCTGTG	TAAGTCCACT	ATCATTCAGG
102841	CCTCTAGCTT	GCTATGATTA	GCATTTGTTT	AAACAACCTT	GTAAGAGTAA	GGGAAAAATC
102901	TGGTAAGTAG	TTAACTGGCG	CTTACTAGGC	ATTTTTGCAA	AGCTTTGAAA	AGATTAGAAA
102961	ATTGTGTCTT	GCGAGTTCCA	GTGTCTTCCT	CAAAATGCTT	AGGAAGATTT	TCTCAGCTCA
103021	ATACATAGTC	CCCTAGGTTT	TCTCATATAT	TATATATATA	TATATATATA	TATATACTGT
103081	TAAATTCATT	TGGCTGTAA	CATTAACTTG	AAATTTATTC	TGGTGCAAAA	TGTGAGGCAG
103141	GGATCTAACT	GGCTCTCATT	TTATCCATAG	CTAGCTACCC	ACTTTAAATC	TGTCAGTCTG
103201	TCGACCAAGC	ATAATTTAAT	CCCTTATATA	TGAATTTTTA	TATGTGTGGC	TTTGCTTGTA
103261	AATAGTCTAT	CTGGTTGCAT	TGCTTTGTCT	CCTCTAGGAC	TATGCACCAT	GACATGCCAC
103321	ATTCTTTTTT	TCAGTACTTC	TTGCCTGTAG	TTATTTAAAT	CTAGAATTTA	CAAGTTTTAA
103381	CCATTTTCTT	TCTGTTGATC	TTGCTTTTCG	GTTTTGGAGG	TTGGGGATTG	AGTACTGGAA
103441	GAAAATTTAG	AGGGATGGGA	ATACTGTACG	CAACAAAAAG	TAATATTTAC	TTTAAATTTT
103501	TTATATTTTG	TATTTTTTTA	TCATATAGCT	TTTACATCAC	ATTTTACAGA	CTAACTTTAG
103561	AACAACCACA	GAATGTCCAA	CATTAAAACT	ACTAATTCCA	AAGACCTTGC	CTCACATTCT
103621	TTTTTACAAT	AAATATTTTT	TACACCTAAC	ATTCTTTCTT	GGCCTACATC	TAGAATGTAA

Figure 8 (Page 32 of 73)

48/162

103681	ACTGATGTAC	CATACTAAAA	TCGCCTGACC	AACTGTCAAC	AACAACAAAT	CACACACACA
103741	AAAGATTAAA	TTTGAATTGC	ATCGTTTACT	TAAATTCATT	TGTGTTCCAG	CTTTTAATAA
103801	GGCAGTTTTT	GGTTTATAAA	GTAATATTTG	CATTTTAAAA	ATTATGAAAA	TGAATATGTC
103861	AGTTTGTTTT	ATGATTCGTT	TTTCTTGACT	CTTATACAAG	CGACTCTAAC	TGGCATAGAC
103921	ATTTGTTATC	CACAGACAGT	ATAGATATGT	TAGAGATGCC	AATGGACTTG	GTCATATGCCA
103981	AGGTGACTAC	TCACAAGCTC	TGGGCCCCAGC	TGAAGGTCAA	GTATTTTTTT	TCCAGTTATA
104041	GATGTGCTGG	ATCTGATGTA	TAGCGCTTGA	CTTTTTATAT	TTTCTTTATC	TGTAGGAAAC
104101	AAATGTGTTG	GAGGTACTGG	GTCTGACGAA	TAGCATAAAA	GAATAAAGTT	ACATTACTGT
104161	CTGAGGATCA	GATGGACAGG	GGGTGGTAGC	TCAGTCCAGC	TATTTTCCAC	TCCCTCACTT
104221	ACATTCTTTG	CCCCCTCCTC	AACAGAACAA	GGATTCTGCT	GTAACCTCTC	ATTGACAGTT
104281	GATATTTAAA	AATTAACGAA	TGGATGAAAT	TCTCATTTGT	GAAAGAAAAAT	TTATTGAGCA
104341	TTTTGTATTT	GTGAGTAGTG	CAAAACATTTT	AATATTATAT	TAAGAACTTA	TTGTTTTGTA
104401	TTAGAGGAGT	AATTAAGGAG	AGATTGGAGA	CAAAAAGGGG	GTGTTGTTTG	CAGAATATAC
104461	CATCCAAAAA	TAGACCACTG	TGGGATCAGG	ATTCTTTTGA	GCTAAAAGGCA	CTTCAAAAAC
104521	AGCATTCAAG	AAGGGAATTC	TTCTAAACTT	TTCTTTCTGA	AAACAGGAGA	TAAAAGTTCC
104581	AATGTGAAAA	ATGCTCTGCT	TGTACCAGGT	GAAAAAGACAT	ATTCTTCAGC	CCAGAGGCAT
104641	AGATGAGATA	ATTCTGCACA	AACACAGCAG	GGAGTCATAG	CCGAGAGACT	TCTATACACA
104701	AACAAACCTT	GTTAAAATAA	TCATATATTC	CTTTAATCTC	CTCATATGGT	TTACTTTCCC
104761	ACAATTGCCT	CTCTTTAACT	TAATGTGAAA	GCATTTAGCT	TTTGCCATTT	CTTTGGGGCT
104821	TCACTTTTTT	ATGAGGGTTC	TCCTGTCCCA	TAAAATTTAC	ATTAAATACA	TTTGTATGCT
104881	TTCAATTCTG	TAATCTGTTT	TATGGCAAAT	GAATTATCAG	GTCCAGCTGG	AGACCCTAAC
104941	AGAGTAGAGG	TAAAATTTTG	CCTCCCTACA	AGATAGAGAT	TGTGTGCATT	AAATGTTGTT
105001	TGTTCCCAGT	TGTTTCAGTTT	GTCAGGCCCTC	TGAGCCGAAG	CTAAGCCATC	ATATCCCCTG
105061	TGAACTGCAC	GTATGCCTCT	AGATGGCCTG	AAGTAACTGA	AGAAACACAA	AAGAAGTGAA
105121	AATGCCCTGT	TCCTGCCTTA	ACTGATGACA	TTACCTTGTG	AAATTCCTTC	TCCTGGCTCA
105181	TCCTGACTCA	AAAGCTCCCC	CACTGAGCAC	CTTGTGACCC	CCACCCCTGC	CAGCCAGAGA
105241	ACAACCCCCCT	TTGACTGTAA	TTTTCCACTA	TCTACCCAAA	TCTTATAAAA	CGGACCCACC
105301	CCATCTCCCT	TCGCTGACTC	TTTTCGGACT	CAGCCCGCCT	GCACCCAGGT	AGAATAAACA
105361	GCCTTGTTGC	TCACACAAAC	CCTGTTTGAT	GGTCTCTTCA	CACGGACGCG	CCTGAAACAG
105421	TTTAACAGGG	TTTTTCCTGC	CCAGTCACAA	CAAAGTGATG	TTATGCTGCA	GGCTGAAGTT
105481	TACAGCTAAT	GCTGTTGAAG	TCTAAAATCA	GTTTTGGTTT	GTTAGATTTG	GGTGAGATGG
105541	CTAAGATTCT	CAGAGAAAGA	AGTCAAGTTT	GGGGTGCAAT	TTTCAGACTT	AAAAATTTAG
105601	CAGTAGCCCT	TGCAGTTTTT	CCAATAGAAG	TGATTTAAGA	ATGTTTTTCAG	GAAATTTAAA
105661	ACAACAGTGA	GAAGCGTGTA	TGGAGAGTTG	AACTACACTC	CAGACTTGGC	TATAGGAAAG
105721	CACGAATGCT	GCTATTGTAT	TGCACCTTGG	AAAAGAGAAC	AAAGGAATAT	TTTCGGACAA
105781	TTTTAACATG	TCACATATGA	AAAGCTAAAC	GGAATCTGTC	AACACCTTGT	ACGTTATTAC
105841	AGGCTGTGAT	TTTAAAAAAA	CAATCCTTAC	TAATACATAC	ATAGTTGCTG	CTAGCAATAT
105901	AGTGTTGGGA	GTA AAAACAC	GAAAATGAGA	GTT CAGGACA	ATATCCCAAC	TCTGAGCAGA
105961	TTTTTTTAA	GTTTAAACATC	TAAAATTTAAA	CCATATTATG	TAATATTTTAT	TTCTTTTCCA
106021	CAGTCTCTTC	TCATGCCCTCG	TTACACATTAG	CTAATTTAAA	GTCCCTGTAG	TATCATCATA
106081	ACCCGATTTA	CAGATGAAGG	CACGGTTGCA	ATGAGCTATC	ACCTCTTCT	GAATGAGACA
106141	GTACAGTGTG	AAGGATAGCA	AAACTCCACT	CCCATCCTCT	TAGGGCTCTG	GCTGGACCAG
106201	CAAAATTAAAT	TAATGTAAAA	TGGATTAAACA	GGAGAAAGGT	ATATGCATTT	ATTTAACACA
106261	GGTTTTACGT	GACACAGGTG	CTCTCATAAG	GTAATGAAAG	CCCAAAAAA	GCAGTTAGCT
106321	ACTTATATAA	TGAATTGGAC	AATTAGTAAA	ATGTAAAAAT	GCGCTAAAGC	AAAGGGATTT
106381	AGGCTAGAAT	ATATAACTGT	GTAAGAGAAGC	GCCAGCAAG	GGCTAGTGCA	AGGTTTGTAC
106441	AGAAATCTCT	TGGCCTCAGC	CTCCTATCCT	TGAGAAGAAT	GTTGCTTTTT	TTAAACTACA
106501	GTGAGAACAT	CTTTCATATG	AGAAATTCAC	CTACTGCTTC	TAAGAAACAG	GTCAGCTTTC
106561	AAGAAAACAT	AAGGCCAGAG	TGATCTTTTC	ACGCTTGCTC	TTTTAAGTAC	CTTTGAATAG
106621	TCAATATGTC	TTCAAGCACT	TGAAAGACTT	AAAAAGTTTA	CCACTCCGGC	ATATTAGTGA
106681	AAGCCCTTAA	TATAAGCCCT	TATTA AAAAT	CTCAGTCGAG	GGTATAAATT	CAGATTCAAA
106741	TAGTAGTGTC	GTAAACGGGA	GGGAAAAACT	AAAGGGATTA	AAAAGTGAAA	CTATTGTGTT
106801	CTCCCTCGCA	GTCCTTAGGT	CACTGCCCT	CGAGGGGCGG	AGCAAAAAGT	GAGGCAGCAA
106861	CGCCTCCTTA	TCCTCGCTCC	CGCTTTCAGT	TCTCAATAAG	GTCCGATGTT	CGTGTATAAA

Figure 8 (Page 33 of 73)

49/162

106921 TGCTCGTGGC TTGCTTTCTT TTCGCGTACC TGGTTTTTGT TGTCAGCTGG TTAGACATGT
106981 CTGGTCGCGG CAAAGGCGGT AAAGGTTTGG GTAAGGGAGG TGCCAAGCGT CACCGAAAAG
107041 TGCTGCGGGA TAACATCCAA GGCATCACCA AACCGGCCAT TCGGCGCCTT GCTAGGCGTG
107101 GTGGGGTTAA GCGAATTTCC GGTTTGATTT ATGAGGAGAC TCGTGGCGTT CTCAAGGTGT
107161 TTCTGGAGAA CGTGATCCGG GACGCCGTGA CCTACACGGA GCACGCCAAG CGCAAGACTG
107221 TCACTGCCAT GGATGTGGTT TACGCGCTCA AGCGTCAAGG ACGCACTCTG TACGGCTTCG
107281 GCGGTAAATC TTTTCGTCAG TTTTCTTCCA ATGGCCCTTT TCAGGGCCGC CCACTCCCTC
107341 TCAGAAAGAG CTGTGATTGT ATTCTTTCGG ATGGTAACAT CTCAATGGCT TTA CTGCGCT
107401 ATTCTGCCTA GTATGTAGAA CTATTATAAA CCAGTTGGGA GAGACCAGGT TGTTTGGTCT
107461 GAGTGGCTGC TAAAGCAGAA ATCAGCTAAG TAAACGAGGT CTCCGAGATA AGTGAGCTAT
107521 AAACCTCAAT GCTATAGTTT TGACATGTGA AGCAACTTAA CGTGACGCGC GAGTCCGATA
107581 AATGAGTAGC TCAGCTTTTT AGTTTTAAAA ACGAGTTGTG CGTTATTTGT ACGAGAGCCT
107641 AAGATGCTAG CTGCCTGGAA CTGAGTAGGT GGATTAAAT GGGTGTGAGG TCTGTTTTCC
107701 CAGGCGTATC TGACTTAACG TCAGCAAAAG CTGTACTTTT AGCTTCCCTG GTAACACCTG
107761 CCGTCCCTAA CCGCCCCCTG CCGGTAGCGC CAGAAGCCTT TACTTCCATT TCTTAGTGAG
107821 CTTGGCGTCC TGCTGAGTGA CGTCACCTCC CCCTTCTCTG GAGTAGGACT GCGGGTTAAA
107881 GCTGCTTTGC TATTTTCAGT CCTCAGGCTG GAGGCTCCCC TAAGCAGGCT GCCTACGCAG
107941 TTCGTAAATT CCCACTTAGT AGACTAAGGG AGTCTGTTTT ATAAATAAGG ACTCAAATTT
108001 CTTCTGACTC CGAGGTCCGT GGCAGCAGCT ATAAGATGGA AGCCCCCTCT GATGTAAGAT
108061 TCTCAGATGA CTTGCATCTT CACTGTACCT GTCAACCCAA TAGTCTTCTA TTCCTGCCTT
108121 AAATTGTAAA TTCCAAAAC TATTTAATTG TGAAAGTTTC AAACGTACG ACCTAGGAAG
108181 TGTCAAAGTT AGGTGACCAG ATTTTATAGAA GTCAGCCAAA TATTCAGCAT CTTTGATTTA
108241 GTAACAAATA TATTGATGGC TACTTCAGCA AAAAAAATCA ACTTTGTTTT CTGGTTACTT
108301 TGCTAACAAAG CTTCTCCTGA CAGGAGGATA TAGTGAATAG GCAGTTGAAT AAGTGAGTTC
108361 GGGTGAGAGG TCTGAGCTGG AGATAAAAAT GTGTGAGTCA TCAGCAGATA AATAAATGCT
108421 GAGACCAGAT GAGATGGCTA AAAACTGAAA CATAATGTAG TGCAGCATTG TTTGTAATAG
108481 TAAATGAGTG GCAACTGTAA AGTTTTCATC AGAAAGGACT AGAGTGATCT ATACATCCAT
108541 AAAATAGAGT ATTTCTCTAC ACAGCCCTAC TAAAGAATGA GAAAGCTGTA CTCCACTACA
108601 TACTCTGGTG TACTCTGGCT CAGTTCTTGG ACTCCTCTTT TCTTGGCTAA CTCAACTGGC
108661 CTCACCACTT ACATGCTCTG TGCTCTGTCA AATAGTTTGT TCAACAGAAC ACCACGGCCT
108721 AGCTGTAAGT GCCACGTTAA CTTCTAGCAA TGCCAAAGCC TGTGATAGTG GCAGCTTCGG
108781 GCTGTTTCTC ATTCGCGGGA TGCCTAACCA CCTCTCCAAA TTCTATCAGT TTGCTTCCAC
108841 CCACTTCAAG CTTCAGAACG AAACATAGAG CTTAAGAAAT ATAGGCCCGG CAAGGTGGCT
108901 CACGCTGTGA ATCCCGGCAC TTTGGAAAGC TGAGCCTGGT GGATCACCTG GGGTCAGGGG
108961 TTCGAGACCA GCCTGGCCAA TATTGTGAAA CCGCTCTCT ACTAAAAAAA AAAAAAAAT
109021 TAGCTGGGCA TGGTTGCGGG CGACTGTAAT CCAAGCTACT CGGGAGGGTG AGACAGGAGA
109081 ATAGCTTGAA CTCGGGAGGC AGAAGTTGCA GTGAGTTGAG ATCGCGCTAT TACACTTAGG
109141 CCTGGGAGAC AAGAGTGAAA CTGTGTCTCT AAATAAGTGT TTGCAATTAT AAACCATCTC
109201 CCTGACCTTA AATCTCTAGA CTCATATACA ACTGCATATT TGATGTATCT AATTGAATAA
109261 TGGGCATCTC GAACCTGTCC AAAATATGTT TATACGTAAA CACCAAGTCT GTTCTTCCTC
109321 TGATATTTGT CATGTCAATC AATAGAACTC CATTCTTCAA GCAGCTTGGG CCAGGAATTG
109381 TGCAATATTG TTTGTCTTGA GCTTCTTACA ACTTTACCCC AATGCAGTCA GCTCTGTTGA
109441 AAATCAATCA GAATACCTTT CATTGTTTTT TTTGCTGCTT CTCTAGGAGC AAGCTGCCAT
109501 GGCGGTTTGT CTGAATGACC ACAGTGACCC CAAACTGGTC TTTGTTTTCA CTTTAAATCC
109561 CCCTGTCATA CAGTTTTTTC TCTATCCAGC ATCAACAGTG ATCCTTTTTT AAGGTATTAT
109621 GTCCACTGTC TGCTGAAAAG ATTCCACTGG CTTTCCATCA CCTTCATAAT AAAAACCAGC
109681 ATCCTTATCA TAGCCTACAA GTAAGATGAC CAACCATTAC AGTTTGCTG ACTCTCAGGG
109741 GTTCTCAGG GTGTAAGACT TACAGTGCTG AAACCTAGAA AGTTCCAAGC AAACCTAGGAT
109801 GAGCTGCTCA ACCTACTAGA TCTGTACTCT GGCTACCCTC TGACCTCATT CTCTTCGCAG
109861 TTCTTTCTCT TCACTGACCT TGCTGTTTCT GGAATGGACC AAGCATTTC AGCATCAGCA
109921 CCTTTATATC TATTCTTTCT CCCTAGAAAG GTCTTGTCCT GGATATCTGA ATGGCTCTAG
109981 ATCTCATTTT ATTCAAGCCT CTCCTCAAAT ACCAACCTTA CGAAAGAGAC CTCCCATAAT
110041 CATCCCTTGT AAAATAAGCT TTTCTGCTCA TTAGCATAT ATATATATAG TTGACTATCC
110101 TCAATAGCAT ATATATATAA CATTTCCCA CCTAGAATTA TATATGTAAT AATATATTTA

Figure 8 (Page 34 of 73)

50/162

```

110161  ACAAAAAATA CATATAACTA GATATATTTT ATTTTGTGTT TGTTCTCTCT CCCCCAACTG
110221  GAATATATTT TTTGAAGGTA GGGACTTTGT TTTGTCCCAG AAGTATCCCT AGCACCTTGA
110281  ACAGGGCTGA CGTTTAACAG GTAGTTTATG GAGGTTTGTT GAATGAAAGG ATGTGTGAAT
110341  TTTCTATGTA AGTCTCCAGG CTCTCCACTA AGCCCACCAG AATGCTAACA CAATCAATTC
110401  CCCATCTCAT TCCTTGACCT GCCACTGCCT GAAGCAATCA GCGTGCAGTT TCTCTTTAGA
110461  AAATCTGGGG GATAGTCTAG GGGTTGCAAA TTAAGCAACA TTATCTTTGT TCTGAACAAG
110521  GACTGCATGA GTGTTAGGAC TGAAGAAGGC CCAAGGTGGT GGTGGGTATG CCTAAGATGA
110581  GTATGACATA TCAGCAATGC TATGAACATA GCAATGCTAT GAAAGGCCAG GCAAAACGTA
110641  ACAGGAGCTA GTCGTGGCTT ATTGTTACAA CGACTATACC TCCCATATGG GTAATCGATA
110701  TCCACACACC CCTCTACATT GACTCTGGAA TTCAGGAAAG GGAATTAATA TTTTCTAACT
110761  TATGTACCCC AATGATTTCA ACAATATCTG GCATATGAGA TCAATAAATA TCTTTAAAT
110821  ACCAATGAAG AAAGACATAA AATGACCCAC CCTCCATACC AGGCTCATTT TTGCTCCTCT
110881  GATTCCTGAA ACTATCCAGA ATGCAGCTAT GAATTCCTCT CATTGTCAGT TTTAAATTAA
110941  GCCAAGCTGG GTACTTGTGT AATTCCTCAA GAAATCCTGG ATGAAAAC TGTCAGGTGGAA
111001  AACAGGACCT CAAAATAAAG AGACATCCAT CACTGAAGCT AACATCGTGA GGCTGAAATC
111061  AGTCCTATAA CAATGGTACC AAAAAGAGCA CAATGAGAGG CATTTGTGAA TATTTACTCA
111121  GATGAGAGTA AGATATTTCC CTATCAGCTA ACCTGAAGTT CACATCCCCT TTCCAGCTGA
111181  GTTCTGAAGC TAGATGTACT TAACTGGAAC ACATAACTGC ATCAGGAACA TCCTTTAAAA
111241  CTATGGCTAC CATGGCTTGA CTGGACAAAC CCCAGGCTTC CAGGTTTAGC ACAGGTGGCC
111301  CTTACAGAC CAACATTGCC TATGCTACCA ACCTCATGTC CTACCACCCT GCTTGCATCA
111361  TTTCTCTCTC TGCATATATA AAAATATATG TGTATGTATA TAATCAGCTT TATTGATATT
111421  TAATGTACCA CAAAATTTGC CCACCTTAGG TACAGTTCAA TGAATTTTAC CGTGTCTCT
111481  TAGTTGTACA ACCATCATCA CAATTTAATT TCGGAATATT TCTATACCCC AAATTTCCAT
111541  TTCTGCGTAA AGGGGGAAAA AAAAAGGTTA ACTGCTGAAG GCCGCGGTAA CACTGAAAAA
111601  GGTGCCTTTT CTCTCTAAAA CAGATTTTAA TCTCCCCTGA ATTTAGTGTC CTGGGTATTC
111661  CAGGAGTCTG AATAGGGTTT CAATTTTCAG GGTCTTTTAA ATAGAGTAAA ACTGTATTGG
111721  TGGCGATAAA TTTAGTATTG CTCTCAGTAC ATGATTGAGG GATACTTAAA TGTCTCTGTG
111781  ATTTTATTTT ATAATCGCTA AAAGATGGTT TTTTTTTTTT CTAACACAGG GTTTTTGTGT
111841  TTTCTCAATA AGCTTCTTAG CTTCCCCTCC GGCTCCCCTG CTTGCCTCAG GAAATATTAG
111901  CTCATCAGTT CTGATTGGTT GACAGCTACG AATGGCCCTC ATTGATTGGG CAGCGCTTCT
111961  TTGTCCCTTG GAAACTAATA CAAATTTTAA ACACACTTTT TTTTCCACTC TTTCTTCAGA
112021  GTTGGAATAT CGTTGCTCCC CTACCCATAT GTAGTGAGTG GAGGGCAAAC TTGGAGTTCC
112081  CCTAATCTTT CTTTTTTAGG ATGTCAGCTC AGTATCATTC ATCTTAATTA CACATTGAGC
112141  TTCTTGACTT AATGGATACA GCTCTTCTTT TGTTTAGTTG GGCGGCCCTG AAAAGGGCCT
112201  TTGGTTCAGA AATGCAAGCT GTGGAGAAAT CAGCAACCTT AACCGCCAAA GCCATAAAGG
112261  GTGCGTCCCT GGCGCTTAAG CGCGTAGACC ACGTCCATGG CAGTGACTGT CTTGCGCTTG
112321  GCGTGCTCCG TATAGGTGAC AGCGTCACGG ATCACGTTCT CCAAAAACAC CTTGAGCACC
112381  CCGCGAGTCT CCTCGTAGAT CAGACCAGAG ATCCGCTTCA CACCGCCACG CCGGGCCAGA
112441  CGCCGGATGG CCGGCTTGGT GATGCCCTGG ATGTTGTCAC GCAACACCTT GCGGTGGCGC
112501  TTGGCACCCC CTTACCCAA ACCCTTCCCG CCTTACCAC GTCCAGACAT GACTTCCCAA
112561  GAAGTGAACC AAGAGCAAGT GAGAGAATAG GAAACCGATC TTTATATATC TACGTTACCC
112621  CTGCCCCCAC CTCCAGCGGA CACTGAGACT GAAAAGCGCG CAGGCGGGAA ATGTGACGCC
112681  TACAGTCCGC TCCTTTAACC CCTCCTCCAA GCCCCAGGAA ATGGCGGGAG CAGCGATTGG
112741  GGGAGGGTGG GGAGATGAGG GTGGGACCAA GCAGGCTTGA CCAATGGCCT TTATTTTCTT
112801  AACAGAGCTA CAGGCTTTGA GGAAGTGGGT TAAGAATTAA ATGTAAACCC ATTCTGACTC
112861  CAGAATTATT TTAAGTCGAA CTTTTTTTTT AACCGAATCT CTCTGTCGCC CAGACTGGAG
112921  TACATTAGAG CCATCTCGAT TCACTGAAAC CTCTGCCTCT CAGGTTCAAG TGTTTCTCCT
112981  GCCTCAGCCT TCAGAGTGTA GCTGGGATTA CAAGCGCTCG CCGTCGCGCC CGGCGTGTGT
113041  TTGTATTTTT CGTAGAGACG GGATTTCGCC ATGTTGGCCA GGCTGATCCC GAACTCCTGA
113101  TTTCTGGTAA TCCGCCCGCC TCAGCCTCTC AAAGTGCTTG AATTACAGGC GTGAGTCACC
113161  GCGACCGGCC GAAATCGATT GGTTTTGAAG CTTTCAGTAG CATTAAACG AAAAGTGCTC
113221  CCAATGCATT CCCTTTTGTC TTAAATTGGT TTCTTACAG TACTTTACTT GAAAAGGTGG
113281  TGGCTCTGAA AAGAGCCTTT GCTTGGACCG TCAGAGAGAC CACAGTAATC ACGCCCTCTC
113341  TCCGCGGATG CGGCGGGCGA GCTGGATGTC CTTGGGCATG ATAGTGACGC GCTTGGCGTG

```

Figure 8 (Page 35 of 73)

51/162

113401 GATGGCGCAC AGGTTAGTGT CCTCAAATAG CCCTACCAAG TAGGCCTCGC ACGCCTCCTG
113461 CAGAGCCATC ACAGCGGAGC TCTGGAAACG CAGGTCTGTT TTAAAGTCCT GCGCAATCTC
113521 GCGCACCAGG CGCTGGAAAG GTAGTTTACG AATAAGCAGT TCAGTGGACT TCTGATAACG
113581 GCGGATCTCG CGCAGAGCCA CGGTGCCCGG CCGGTAGCGG TGGGGCTTTT TCACGCCGCC
113641 GGTGGCCGGA GCGCTTTTGC GGGCTGCCTT AGTGGCCAAC TGTTTGCGTG GCGCCTTGCC
113701 ACCAGTAGAC TTCCGAGCAG TTTGCTTAGT GCGAGCCATG ACGGAAAAAC AGCACAGCGG
113761 AACACCCAAC ACTAGCGCAA ATACGCCCAT GAGCTGCTCT ATTTATAGTG TGTAAGTGTC
113821 AGTGATTGGA TGATAGAAGA CGCTAAATAT GACGTTACAC ACTCTGATTG GTCTATCTTT
113881 AAGCCAGCAA CAATCGTGCA GTTTCACCGG CTACTATATT CTATTCCAAC TCTACAGATG
113941 ATTATTTAAG TGGTATTTTA TTACTACTAT TATTTTATTT TACTTTTGCT TTGTTCCCCA
114001 AGCTGGTCTT AAACCTGGGG TCAAAGGATC TTCCCGCCTC AGCATCCAGA GTAGCTGGGA
114061 TTACAGGGGA GCCCCTGCTG GCGGCTTGG ACTTTAATTT TTTAAACTTG TCCTCTTCTA
114121 CATCTGGTTT TCATAACCTG AAGCTGTGTG TTATTTTCCA TAAACAAGG CATTGATTCC
114181 AAAGGTATTA TAATTCCCA ATTCCGTATA ACCTTCAGCT CTTTAGGAAA AAAAAAAAAA
114241 AAAAAAAAAA GAGGGAATAC TGCTCACCTC CTCTCCGGA ATGTACCCTT TACGGGAATT
114301 TCTGAAACCT TTCACAAGAA TTGGATTCCCT TTGTAATGCT TTAATTGACT TAGGAGTGTT
114361 ATTGAAATCT ACAAAGCATC TCAAACATAG TAGGATTACA CTATTACTCA GAAACATTTT
114421 CTATGAGACG TCTTTCTCTT GATTATGCTC TTTGAATCCT AAACCTGCAG CGTTCTGCAG
114481 CTTTTGTTTT CTAAAGCCTA GGTGTACTCT GCCAGTCACA AAATGGCGTT TCTCCAGCAC
114541 TGCCGCCAGG TACCACCAGC TGGGAGTTGT TCCTCTTGCG GAGCAGGAGG TGGACTTGGC
114601 CCAAGAGAAA CTGGATAGTG GTTCGCAAGG AACATAATTT AGCATTGCCA AGAGCTAATG
114661 CAATCATTTT GAAAATCTCA AAACACTGAA AAGTGGATTG TGACCTTTTT AAATTCACAA
114721 GAGACAGGCC ACATTCTATC TTTTGATTGG TTTAGGCTAT TTTCTTGAAC AGCCATTTAG
114781 AAAGCAGATC TATCATCCTT CATTTGCATG GAGCGTTCCC ATTTTATTTG AAACCAGTTT
114841 AACCCAATAG AAAAAAGGGA GGCAGAACCC ATTATTTAAA GTGGAAACTC CTGAATCAGA
114901 TAATTAGGAG TATTTCTTTT TCAAAGTTG CGTTTTTTTCA GATACCTCGC TTATTACACT
114961 AAGAAAGGTT TATATCTTTC ACAAAGGGTT TACTTACAAA AATCTTCCAA TTTTGTATAC
115021 CTGTGTTTTCA TAACTGACTA GCCGTCAAAC CAAGATGTAG AGTTTCCAAC CGTTATTTTC
115081 CAAATTTTTTA GAAATTACGT GAAATATTTG AATGCATGCC TTCTCAATAA AATGGGACGT
115141 AGGAAGCACT GGTGCAGAAG ATGGGTACAA TACTTATCTG GGACCACTCC ATTATTTGGT
115201 TGGCACGTTG TTTGAACAAA AAGGGGAAAA GCTCAGGTTA CTTAGCATGG TTCGGACTTA
115261 TTTGAAAACCT ACCACAGCAG GAGCGGAAAT AAGACCGCAT TACCTCACTC TCTGCTGTGC
115321 TGTGCTAGGG GGTTATCCAG AATAGGATTG TAGAAGTGGA TGTCGATTTA ATAGTTTTTT
115381 ATTCTCCCAT TAGCTGAGTC TCTGATTGGC AATGTGAGAT CGTTTTAGCT TATTGATACT
115441 TTGAAATGCA CTTAACAGCC ACAAACAAGT TAAAGGGTTG TTACCATAAA ATCTTATCCC
115501 CAGGGTGTGC TTGCATTTAT CACCCGTGTT TGCTTTCACA CTAAGTGGAC TTAACCTCCC
115561 AGCAGAATGC CTGTCAGGGA ACCGGTTTTG TGGACCCAGC ATTTAACGCC TTTCCGAGGC
115621 TTGTGAGGCC CATAAATATT TGTTGAATAA AAGAATGAGT TGACCATGTC ATGGTGCGCT
115681 GATTGCGTGT GCTGACATGG AACACAGGTT GTAAACCTTA ATACCAATTT GGGGCATGTT
115741 GTATGGATGA AAAGGGCATT GGAAATTCCT GAAGTGCATC CCACATTGGA CTGTGGAAAT
115801 AAGTTGCAAG TGCAGAAACG TTTCCACACT TGCAGTTTGA GTATTAATTG CAGCGTTTGT
115861 GAATTCTGGT GTTGTCTACG ATTCATTCTT GTTTGACGTG AAAGGTATTC GCGAGACACA
115921 TCGCTCTAAA ACATTGCCAG AAAATGTAAT AGAGTTGATG ACAACTGGCC CTAACACGGC
115981 CTAAACTCG CACTTTTCTC TCCCTCCGCA ACTATTCAA AACTGTATT TTACATTTCT
116041 TGCAAATTAA AAATAACAT CTCTGGCAAC GGACCTCTAA AAATTTCTAA TAAACTCCT
116101 CGGATGCTTG TGGCACTGCA TTTGTAAACC GCCCCCTCTC AACCTACTCC CTAAAAAAGA
116161 GCTGCTTTTT GAGAGAGAAG CGGTACCCTC TGATGTTACT GGGCGGCAGT CTGCCTACAA
116221 TTTCTTTCAC AATGAGGCAA CCAGAGCGGC TTTTCTGTG TGTTTGCTTG CGTTGAGGGG
116281 AGCAGGACCA TAGGCCCTAG AGGCCCCAG CTGCCTTCTG AGACTGGGCG AAACCTCGG
116341 CAGCGCGCAG GGGGCGCTAG GCGCGGAGG GCGGGCACTG ACGGGCACCA ATCACGGCGC
116401 AGTCCCACCC TATAAATAGG CTGCGTTGGG GCCTTTTTTT CGCATCCTGC TTCGTGAGGT
116461 TTATACCACT TTATTTGGTG TGCTGTGTTA GTCACCATGT CTGAAACAGT GCCTCCCGCC
116521 CCCGCCGCTT CTGCTGCTCC TGAGAAACCT TTAGCTGGCA AGAAGGCAAA GAAACCTGCT
116581 AAGGCTGCAG CAGCCTCCAA GAAAAAACCC GCTGGCCCTT CCGTGTGAGA GCTGATCGTG

Figure 8 (Page 36 of 73)

52/162

```

116641 CAGGCTGCTT CCTCCTCTAA GGAGCGTGGT GGTGTGTCGT TGGCAGCTCT TAAAAAGGCG
116701 CTGGCGGCCG CAGGCTACGA CGTGGAGAAG AACAAACAGCC GCATTAAGCT GGGCATTAAAG
116761 AGCCTGGTAA GCAAGGGAAC GTTGGTGCAG ACAAAGGGTA CCGGAGCCTC GGGTTCCTTC
116821 AAGCTCAACA AGAAGGCGTC CTCCGTGGAA ACCAAGCCCG GCGCCTCAAA GGTGGCTACA
116881 AAAACTAAGG CAACGGGTGC ATCTAAAAAG CTCAAAAAGG CCACGGGGGC TAGCAAAAAG
116941 AGCGTCAAGA CTCCGAAAAA GGCTAAAAAG CCTGCGGCAA CAAGGAAATC CTCCAAGAAT
117001 CCAAAAAAAC CCAAACTGT AAAGCCCAAG AAAGTAGCTA AAAGCCCTGC TAAAGCTAAG
117061 GCTGTAAAAC CCAAGGCGGC CAAGGCTAGG GTGACGAAGC CAAAGACTGC CAAACCCAAG
117121 AAAGCGGCAC CCAAGAAAAA GTAAATTCAG TTAGAAGTTT CTTCTAGTAA CCCAACGGCT
117181 CTTTTAAGAG CCACCTACGC ATTTTCAGGA AAGAGCTGTA GTACACAGAT GAAATCCCCC
117241 AAGCAAATGC AACACGCCCT CAATTATATT AGAATCACTT GGAGAGTCGA TAGAACTTTA
117301 ACATAGCCTC ATCTAGTAAG AATTTACTAC TCAATCTATC AAAGATAGCA AGGTGAATTC
117361 AAATGCACCG AGTTAAAAATC GAGTTTTAAA GTCACCTGGG TTTTCGGTAGC CGGAAGTCCC
117421 GCGTCTCACG ACTCCAAGCT AATTAGTCAT AACCGTATTG AACCAAGGTT GAAGCCCAGT
117481 CCCAGGCTTG AGGCTTTTTT TTATACAAGG TTAAAGTGGG GATATTGCGT TTTGGGGTCA
117541 ATATTGCTAA AGTAGCATTT TCCGAAATTG GGTGGTCCTA AGAAATGCTT CTGGGATAGT
117601 TGGCAAAATA TATGGCTTAA CCACGCCCTC TCCACAGGAG TGGCTAGCGA GCTGTCTGTC
117661 CTTGGGAAGG ACGGTGACCC TGCTGGCGTG GCTGGCGCCC ACGTTGGCGT CCTCTGAAAG
117721 CCCCGCCAGG TAGGCCTAGC TCGCTTGCTT TCTGCAGCGC CATCATGACA AAGCTTTGAA
117781 ACGCAAATG CTTTCTTTGT GCAGCGCCTT ACCATGGGTG CACTTACGGG CTGTGCACTT
117841 GGTTTAGGCC CTTGTCAGGA CAAAGGAGCT TAGTTTGTG GAGTTTTAGA GCTGCAACCC
117901 AAAATCCCTT GCTCGGTTTC TCTGTTTTTA GAAACGGAAG CGCCCTGATT GGATATTTGA
117961 AAATTACTGT GCTTAACTGG ATCGTGTTTC ATCAGTCGTG CAGGATTTTC AACCCTGGTG
118021 GAGCCCACAC ATTCAAACT GAAGATCCTT TTCTCAGAAC TGCCCTTTA AGCTTTTGCA
118081 ATTTTAATTC TGGGGGTCAG ATTTTAATAA TTGGACTTTT TTGTTTACAT CTGACAAGAG
118141 TATATGATGA GCCAAGTTTA CTCACTTTTA CTTAGTGCAG TTCAATTCTA AAAGTTTATT
118201 TTTGCGTGTG TGCATATGAG TTAATAATCA GTTGTATTTT TCAAACGGTC TTTTTTCAAT
118261 TGTTTTGCTT AGCTCCTTCC ATCGTCTAAA GTCAGGGATA CAGGCACATC ACATCCCTGT
118321 TCCCCCTTCC TCAAATAAT ATGTAGCTAC CTAGGTTTAT CCTTTAAAC AAAAATTCTC
118381 ACCTATTTTT GTGAGAAATA TACATGTTTT TCTTTGAACT AAGTATTTTA CATAACCTA
118441 TCTATATACA TGCATACTTG TGTTTTTGTT TTTTTAAAAA AAAAAAAAAA AAAACACGTT
118501 ATCTTTTGAG ACTGGGTCTC AGTCTGTTGC CCAGACTGGA CTGCAGTGGC ATAATCACAG
118561 CACACTGTAA CCTCCAACCT CTGGGCTCAG GCTATCCTGC AGCCTCAGCA TCCGGAGTAG
118621 CTGGGATTGC ATGCACGCAC CACCAAGCCG GGCTTTTTGT TTTTATTTTT TGTGGAGACA
118681 GTCACACCAT GTTGTCCAAG CTGGTCTAGA AATGGCCTCA AGTGATCATC GACCTCCCAA
118741 AGTGTGGGA TTACGGTCAC TGTGCCTGGC CTTGTATGCA TAATTGTTTT GTCTTTTGAT
118801 TAGGGTTATT AATTTAAAAA ACAAAGCCTG GACGCAGTGG CTCACATCTG TAATCCCAGC
118861 ACTTTAGGAA GCCAGATGGG CAGATTACTT GAGCTCAGGA GTTCAAGACC AGCCTGGGCA
118921 ACATGGTGAA ATCCCATCTT GACAAAAAAT ACAAATAATT AGCAAGGCCC AGTGGCACGC
118981 ACTTATAGTC CCAGCTACTT GGGAGGCTGG GGTGGGAAGA TGAAGTGAAC CTGGGAGGTA
119041 GAGGCTGCAG TGAGCAGAGA TCGTGCCACT GCACTCAAGC CTAGGTGACA GAATGAGACC
119101 CAGTCTCAAA ACAAATAATA TAAAAATTTT TTACAACGAT GTTATATACA CTTCTGCATG
119161 TTGCTTTTCT CTTAACCAAA CTTTTCTAAA ACCCTGTCAT GAAAAAAGAA ATCCTTCACA
119221 TGGAATAGCA TAAGTTATTC ATCCATTTCT TATTGATAAG CATTGATGTT TCCAGTTACC
119281 ACTGCTGAAC ATGGTGCAAT TGAATAGAAT TCCAGGGCTG AGATTGCTAG GTTTTAGGTT
119341 GTATTTTATT ATTTTATTTA TTTATTTATT TATTTAGACA GAGTCTTACT CTGTCACCCA
119401 TGGTGGAGTA CAGTGCCATG ACCTCAGTTG CAACCTTTGC CTCCTGAGTT CAAGCGATTTC
119461 TCATGCCTCT GGTCTCCCGA GTAGCTGGGA TTACAGGCAC CTGCCACCAG GCCTGGCTAA
119521 TTTTGTATT TTTAGGAGAG ATGGGGTTTC ACCATGTTGG CCAGACTGGT CTCAAACCTC
119581 TGGCCTCAAG TGATCTGGCC ACCTCGGCCT CCCGAAGTGC TGGGATTACA GGTGTGAGCC
119641 ATGGCGCCAG ACCTGGACTT TGTCTTCTGT TTCATCAGTC CTTCTGTTGG TTCAAGCACA
119701 GTATCACACT GAAGACTGAT GATTCTATAT AAATATGGTA AAGACTGTAC ACCCTAACTG
119761 TTCTTATTTT TTAATTTTAA GGCAATTTTA GATTCCAGCT TTCCAAAGAA TTGTGGAATG
119821 CTTAGAGCTA GAGAAGCCTT GGAAGTCATT TAGTTTTTGT TTTGTCAGAG AAAATTCTGT

```

Figure 8 (Page 37 of 73)

53/162

```

119881 AGAGACTCTG TCCTGCTCTC ACTGAATACC ATCCCATAGT ACCCCCCAAC AGCTTTAAAG
119941 GGCAATAATA CCTTATGGAC AGTATGCTTT TCCTCAAATA TATTCTAAGC CATGGTCAAT
120001 GCAAAAGAGT GAGAAGGAAA GTAGAATAAG TTATCTAAGA ATCAGTGGGT GCTCTCTTTA
120061 AACTGATTTA TCACTCCCCC TTCCAAACTC TCTTGAAGGT CACTCTGCCT CCCTTTCTAC
120121 ATAAGAACTC CTAACCTCAA GGGAGGAAGG TAAGTTATTC TTATTCCTTG CTTAGAAAAA
120181 GAGAAAATAG GTTTGGTAAG CATCCGCTTT CTGCTACCAT TCTCTGTGTT TCTGTGTTTT
120241 TTATAGGATC ATTCAATTAT TGGTTGGCTC TTGAGAGGGA ATGCAAGGTT CAAGGACACA
120301 AGCCTAGATC TTGCCTGTAT AGAACCTCAT GATGTTATGC TTCTCTAAAA TGAGGCCTGG
120361 AGGAGACATG TTGAAAGTGA CCCATAAATC TGCAGTATCT CATGTCTCTC AATGGGGACA
120421 AGGAGTACCA TGGGAAATAG CATTAGGTCA ATGACAGTAA CAACTCCCAG GTGAGTTGAT
120481 TTATTCTTTT ATTTATAAAG TTGTTAATAT GCTACATAGT CCCTAATTTT GCCACAAATA
120541 GTCATTATTT TAATTTTATA TTTCACTATT GATAAATGAA GGAAAAAATG AGTAGCAGTT
120601 AAGCAGTCCA TAAACCTACA TATAAAGCAA ATTGGAGATT TTAATAATTGA TTCTGGATGC
120661 TTAATAATCCT TCTCATTGAA AAAAAATTTT GTATTAGAAG ATTTCAACAT TCTTTAAACT
120721 GAGAAGCATA ACATATAAAC AGAAAACCAC AGCAAAACAA AAATGCAAAG CTCAATAAAT
120781 GAACACAAAG TGAACACCAT AATAATTGCC ACACAAGTAA AAAACAGAA AATCAGCCAA
120841 CCCTCCCGA GCGCCTGAT GCTTGCTTCC AGTCACATTA TCACTCCATC TGCCCTAAAC
120901 ATAACCCTA TTTTGATTTT CAATGCTGTA ATTTAGTATG CCTGTTTTTG AAACATATAA
120961 AATGGAAATA AAACAAATGT AATCCTATGT ACCTGACATA TTTCACTCCA GAACATTAGG
121021 TTTGAATAGA TTCATCTGTG TTGCTGTGTA TAACTTTAA TCAATTTTTAT TGTTATGTAA
121081 TATTCCATGT TATGAGTGCA ACAATTTAGG TGTCTACTGT TGATGCATAT TTGCTTCCCT
121141 TTTTCAGCTA ATATAAACAA TACCGTGAAT ATTCTGTGT ATGTGTCTTG GTATATATAG
121201 GAATACATAT TTTGTTTGTA TACCTAGGAG AGGAATTGTT GGGTCAAATG CTAAACTCTT
121261 TTTGAAAGTG GTGATATTAG GTTTACATGC GATGAAATGA AAATTAAAC CACAGTTATA
121321 AACAGCATGG ATGAACCTCA CAAACCTAAT GTTGATGGAA TCTAGCTGGG AATTCCTGTT
121381 CTTCCATATA CTTCCAATA TTTTTTTCCA ATTAATAATTG TTAATCTTTT GAAGATGTTA
121441 TCCATTGTGG CAGATGTGCA GTATTATCTC ATTATGGTTT TATTTTACAT CTTTGGCCCA
121501 TTTTTTCTTA ATTGGATTGT ATATCAGTCG ACTTGGGCTG CCATAACAAA AATACTAGAC
121561 TAGGTAGCTT GAACAAAAGG AGTTTATTAC CTCACAGTTC TAAAGGCCAG GCCAGAAATC
121621 CTAAATTGAG GTGCCAAGAG ATTCAAGTTT TAGTGAGGGC TCTCTTATTG ACCTGAAGAT
121681 AGTTGCTGTC TTAGATTGTT TGGTGCTGAA CAGAATACCA GAGACCAAAT AATTTATAAA
121741 GAATACAGAT TTATTTCTTA CAATTCTGGT GGCTATAAAG CCTATGGTCG AGGGGCCCCAC
121801 CTCTGGCAAG GGCCTTCTTA CTGTTATGGC AGATGTGAGA TGTCATCTCA TATTCAAACC
121861 ACAGCAGTCG CCTTTTGTGT CCTCATGTGG CCTCTTCATA TGCCCATAAA ATGACCTCAT
121921 GTCTCTTCCT TTTCTTATAA GGACACCAGA TCTATCAGAC TACTGGCCTA CTCTTATGAC
121981 CTCATTTAAC CTTAAATATC TCCATAAAGT CCCAAAATCC CTATCTCCAA ATATAGGCAC
122041 ATTGGGTGTT AGAGTTTCAA CATCAATTTT GGGGGAACAC AATTTAGGCC AAAAAGATTG
122101 TGTTTTTTCT TGTTGGTTTA AGATAGCTGT CTTTTTGTCC TTTTGTCTCT TTCTTTTTTT
122161 TTGAGGTGGA CTCTTGCTGT GTCACCCGGG TTGGAGTGCA GTGGCGCTGT CTCAGCTCAC
122221 TGCAACCTCC ACCTCCTGGG TTCAAGAAAT TCTCCTCCTC CCAAGTAGCT GGGACTACAG
122281 GTGCATACCA CCGCGCCCTG CTAATTTTTG TATTTTGTAT AGAGACGGGG TTTCACCATG
122341 TTGGCCAGGC TGGTCTCAA CTCCTGACCT CAGGTGATCC ACCTGCCTCG GCCTCCCCAA
122401 ATGCTGAGAT TACAGGTGTG AGCCACCAA CCTGGCCTGT CTTTTCTGTT TTAAGTTTTT
122461 AAATTTTGCT CACGAACCCT TTATCCATTT TATGTGTTGC AGGTATTTCC TCTGTAACCTT
122521 GTCTTCACTC TGTCAGAGGC TGGAGTGCAG TGGCACAATC ACAGCTCACT GCAGCCTCCA
122581 CCTCCCAGGA TCAAGCGATC CTCCCATCTT ATCCTCCTTA GTAGGTGGGA CTACATGTGC
122641 AGGCCACCAT GCCCAGCTAA TCTTTGTATT TTTTGTAGA GATGGTGCTG TTGCCCAAGT
122701 TGGTCTCAA CTCCTGAGCT CAAGCAATCC ATCAACCTTG GCCTCCCAA GTGTTGGGAC
122761 TAGAGGTGTG AGCCACCACT GCACCCAGCC AATGATATCT CATGATGCAT TAAAGTCATT
122821 AATTTAGTGT ACTCAAATTA AGCACACTGC CTTTTATGC ACAACCTTTT TTGTATCTTA
122881 TTTAAAAAAT CATTTTCTAT TTCAAGGTCA TGAAGATCTT ATTTTATAAT ACCTTCTTGT
122941 GAAATTAGTT CTCAAGACTA CCCTCACTTC TAACACCAAT TATAAGTTGG GAGGTCTGTG
123001 GTTCCCAATC AACCTTAGGT TAGTAATTTG CTAAAAGGAC TCACAGAACT TGCTGAAGCT
123061 GTTAGCCTCA TGGTTACAAT TTATTATAGG ATATATAGCT TATTATGTCA TTCCAATGCA

```

Figure 8 (Pag 38 of 73)

54/162

123121	ATGTAAAATT	ATACAACACTAC	TTTTAAAAAG	ATTTTAGCAT	TTGACCCAAC	AATTTCACTC
123181	TGAGGTATAC	AAACAGCAGA	TATGTGTGCA	CATATATACC	AAGACACATA	CACAGCAAAA
123241	TTCATTGTTT	GTAATAGTTG	AAAAGGGGAA	ACAACTCAAG	GAATAAAGAT	TAAAATCAGC
123301	TGAGAAAAGA	AACACACAAG	GCAGTATTAT	GGATCGAATT	GTATGCAGAT	CTCCCTTGCC
123361	CCCAGAAGAT	ATGTTTAAAG	TCCCAACTCC	CAGTACCTCA	GAATTGTGGC	CTTATTTGGA
123421	AATAGGATAG	TTGCAGATAT	AATTAGTTAA	GATGAGGTTA	TAGTACAGTA	TGATGGGCTG
123481	GTGACTTAGA	AGAAGTAGTA	TATATATATT	TTTTAATAGA	ACTAGTATTC	TTCTAAGGTG
123541	GTCACGTGAA	GACAGACACA	CACAGGCAGA	GACTGAGGTT	ATGCAGCTGC	AGGTCAAGGA
123601	ATGTCAAAGG	TTGCCAGCAA	GTACGAGAAG	CTAGGAAGAG	TCAAGGAAGG	ATTTTCCTAC
123661	AGGCTTCAGT	GGAAGCATAG	ATCTAATGAT	ACCTTCATGT	CAGATTTCTA	GCTTCCAGAA
123721	CTACAAGAGA	ATATATTTGT	TGTTTTAAGC	CACCCTAGCT	TCTAGCTCTT	TGTTACAGCA
123781	GCCCTAGGAA	ACTAATATAG	GCACAATCCA	GGCAAGTTCC	AAATATGAGC	TTCCAGTTGT
123841	CCTCTCCAG	TAATATGAAC	AGTATTACTT	TCCCAGCATT	AATGTGTGAC	AATACACATG
123901	ACGTACAGAG	CAGTCCCCAC	TTATGCACAA	AACATATGTT	CCAGGACCTC	CAGTGGATGT
123961	CTGAAACCAT	GGATAGTACT	GAACTCTATA	TAGCTGTTTT	TTCTATACA	GACACAGCTA
124021	TGATAAGGCT	TAATTTATAA	ATTAGGCACA	GTAAGAGATT	AATAACAATA	AATTAGAATA
124081	ATTGTTAAGA	ATATACTGTA	TAAAAGTTAG	GTGAATGTTT	ATTTCTGAAA	TTTACCGTTT
124141	ATTATTTTTG	GACTGCAGTA	GACCACAGGA	ACTAAAACCA	TGTAGAAACC	GTATACAAGA
124201	GAACTGTATT	TCACCCGAGC	CTCAGTGTGC	AGTTTTAATG	GCCTGCCATG	GTTGACTGCT
124261	CACATGGCCG	ATCTTTTAGT	CTACCTCCAC	AGGTAGAGCT	GATACTGTGT	GGCTCAAAGT
124321	TCCTATTATA	AATCACATTG	TTGACTGTGT	GGTGGTCAAA	ACCTCCAGGT	AAACAAAGAC
124381	ACACTTATCA	GTGAGAACAT	TTCAAGGGTC	TAAAATTCAT	CTCCCAGTAG	CTGAGGGCAA
124441	AGGCTAGACC	TCTTTTTGGG	TAAGATAAAT	TTTTTACCAT	ATACTTTATT	TTGCTTTTCA
124501	TGTTTAACTT	TATTTTGCTT	TTCATGTTAG	TTCCCCTGGA	ATTGTTTTTT	GTGTATAGTG
124561	TGAAGTAGGG	GGTCAAGTTT	CTTTTTTTTT	CCTTTTTGTT	CTTTTTCTGT	TTAAAAGGCT
124621	ATACAATTGT	CCCATGCCAT	TTATTTACAA	GAGTCCTTTC	ACCATTGTTG	TATGGTGCCA
124681	CTTTAGATGT	AAATCAATGT	CCATATTTGT	TTGAGCCTGT	TCCATTGCTT	TGTCTATTTT
124741	TGGACAACAC	TGCCCTGATT	ATTGTCATTT	TATCAGTTTT	GATATTTAAT	AAAGCAACAG
124801	ATTTGTTTAT	TTTGGGCCCT	TGGATTTGTG	TATTAATTTT	GAACCCTGTT	TGTCAATTTT
124861	TATAATAAAG	CTTATTGGGA	ATCTGATTAG	GATTACAATG	GTTTTGTAGA	TCAGTTTGGG
124921	GACAAATTAAT	ACCTTTAAAA	TATTGACCGC	TTCAACTGTA	AATATACTCC	TCCATTATTT
124981	AGTTTTCTTG	TTTAATTTAT	CTGAGTAATA	CATTATAGTT	TTCTTCGTAG	AAGTCAGATA
125041	CGTAGAAAAT	TCAAAGCCCA	AGTGCAATAG	CTCATGTCTG	TAATACCAGC	ACTTTGGGAG
125101	GCCGATGTGG	GTGGATCACC	TGAGGTCAGG	AGTTTGAGAC	CAGACTGGCC	AACATGGTGA
125161	AACCTCATCT	CTAGTAAAAA	TACAAAAATT	AGCTGGGTGT	GGTGGCGGGC	ACCTGTAATC
125221	CCAGCTAATC	AGGAGACTGA	GGCAGGAGAA	TCGCTTGAAC	CCAGGAGGCA	GAGGTTGCAG
125281	TGAGCCAAGT	TCCTGTCACT	GCACCCACC	CTGGGCGACA	GAGCGAGACT	TCGTCTCAAA
125341	AAAACAAAAA	AAAGAACATT	CAAATAATCA	ATGTAGATAA	TTCAAATAAC	TAAAAAATGA
125401	ACAGTTATTA	AAATATCAGG	ATATAAAAGC	AAAAAAATCA	ATAACCTCCA	TATATACAAA
125461	ATGGCCAGTT	AGAGAAAAAA	AAAAGAATAG	GCGAGACTTA	AAAAGGCTGG	GAATCTCCCT
125521	GAAAATCTTT	GAGAGCCTTG	GCCCTGCCCT	CAGGGATTTC	TCTGGCTTCA	TGCCCAGATA
125581	CGGGTACAGT	TCCTTGTTTA	AAAAAATTTT	GCTCCATCAA	TCAACAAGGG	GCTCCTTCCT
125641	CAGAGCACAA	GGACCTCCAT	AACACCGGAC	ACTAGATGTC	TAAGGGACAC	CTCTTAAGGA
125701	AGTTAGACTT	CCAAAGAATG	GTGTTTCCTC	TGTCCCCAAA	CTCTGGAAC	CACAGCACAA
125761	CTGCTCCTTG	GAGTTCGGTT	TCAAATCTAC	AAGGCTGTCA	TGGAGGTTGC	AGACCAAGTC
125821	CGTGGCCTCA	GTGTCCGGAT	GTACGGTGCC	CTTGGCACCT	GAATGTGAGA	ACATGACCTC
125881	CCTGAAACCA	CCACAAGTAT	TGTTTCATGT	TATGTATGTT	TTTTCTTATC	TGAAATTCCT
125941	TTTCTTTAAA	AATTCAAATT	ACATATTTTG	CAAGCCCCCTG	AACAAGCTTC	ATGAGCATTT
126001	ATTGAACCCA	CAGCTTTTAA	AACCTACTGA	ACACTTTGCT	CTATGTTGTC	ATTCACTATC
126061	CACCAATTAT	TTAATTATTG	ATCAATATTG	TTTCCTTAGT	GTTGGGATCA	TTTATGCATG
126121	TATTTCTTTT	ATATTGCATA	TTTTATATTT	CTGCATTACA	GTTATTACAT	ATTACTTTTG
126181	CTACAGTAAT	AGTTCAAAAG	TGTACATCCA	AAATTTAGCT	GTGAAGTGGA	TGGACTGAGG
126241	CAGAACTGGA	GGCAAGAAAA	TGTCACAGTA	ATTCTAAAAA	AGATGATGTA	CAATTAGAGC
126301	AAGAGAGTAG	CACTGAAATT	GAAGAAAAAT	AGATGCGTTT	GAGAGAAAAAT	TAGGAGGTAG

Figure 8 (Page 39 of 73)

55/162

126361	AATCAACAGA	TTAGATGTAG	GGATGAGAAG	GGTCAAAGAT	GACACTAGGG	TTTTTAACTG
126421	GAGCAAGTAG	GTAGACAGAA	CATTTCTTCC	TGAAAGGGCA	GGTCAGATCA	TGTGTTGTCT
126481	CAAAGGGCAT	GAAGAGTAGA	AAGCCTGGGA	CAGATCCTGA	GATGACCAAT	ACCCATGGTG
126541	CAGGGAGAGG	GAGGGAGATC	TGCTAAAAAG	ACTGCAAATG	TCAGGATAGT	AGAAAATCAT
126601	GAGTGTGTGA	TGTCCTGGAA	GTTGAGACAG	TATCACATTT	GAGAACATTT	AAATTGGTAA
126661	CTCTGACAAA	AAGCTGGAGG	CCAACGTGTA	ATGCCCATGA	GAGTGAGAAG	CTCCCACACT
126721	TTTGTGGGCA	TCAGAAAGCC	CACCAGGTTT	CTGCAGTGAA	GATCTGAGAA	GGATCCTCTT
126781	GTGGCTTTGG	CAGGGAGAGA	AGAATTATTA	TGAAATACAC	CCCAGAACCT	TCTTCAAAAC
126841	AAAGGCCCTAC	TCTCAAGGGG	AAAACATTTT	GCCAGAGTCT	TATCCCAGCT	GGGAGAAGGT
126901	AATTCTTCCC	ACTGCAGCCT	CATCTAGGCT	TTCTGTCTCA	CTTAAGGGAA	GAAAATTAGT
126961	CAACAGGGAT	CAGAGCTTCA	TGAAAAATAA	TTGGAAATGG	TGCAGCCAGG	AAAGGAGCAA
127021	AGGTCTGAGG	AGGAGGAGAA	GGAGGAAGAG	GAGTTGTATC	ATTATAAATA	CTTGAGGAAG
127081	AGGAGGAGAA	GGAGGAGGAG	GAGGAGTTGT	ATCATTATAA	ACACTTGAGG	AAGAGGAGGA
127141	GGAGAAGGAG	GAGGAGGAGT	TGTATCATTA	TAAACACTTG	AGGAAGAGGA	GGAGGAGAAG
127201	GAGGAGGAGG	AGGAGTTGTA	TCATTATAAA	CACTTGTGAC	GGTCCCAGCC	CCAAGATATA
127261	GGCATGCTAA	TAACTGAGG	CTTAACACTT	TGACTACAGA	ATGCTGCTTC	TCCCTAACAC
127321	CATCAAGGCT	CCAACCTGAAT	AACAATGAAT	TATGAATGAA	AGAGCTGTAA	GGAGAGACAA
127381	AAGTTAGAAT	GAGACAAGTA	TTGTTATCTA	GAGATGCCAA	GAAGGCAAGG	AAGATAACTA
127441	AAAAGGCCACT	CTGGATTTAG	AAATAGGAAG	TCATTAGTGA	CCTTGTTAAAT	AATGGAGCCA
127501	GAGGAATACC	AAGGGCAGAA	GCCTCACTAT	AGTGTGTTGC	ACCTGTCAGA	GGTCAGGAGG
127561	TGTAAGTAC	TCTCCACAG	TGTGGCTTTG	GAAGAGAGAA	GTCAGCAGCT	GCATGGAGAT
127621	TTGGGAGAGG	GAAAGCTTTT	TTTTTTTTTT	TTTAATTGGA	AAAGACTGAG	CTATGTGTAA
127681	ATAGAATAAG	ACAGGAAGAG	TGTAGACACA	GGAAAGAGGG	CAGACAAAAA	CAAGTGCACA
127741	GTTATCTAAG	GGAAACAATG	GGATCAAGCT	GCAAGTATAT	AAACTTGTCT	TGATAGAAGA
127801	ATCCTTGATC	TGGTTTATTC	AGTGTGTTGG	CCAAACCCAC	ATCCCTGTTC	TGCCTGTCTC
127861	TGACTTGCTC	TGTGCCCCAG	AAGCCCAGCT	TCTACAGATA	GCATTAGCTG	GGCAGCCCTG
127921	CCCTCTTGCA	ACAGCTGGAT	TTGGCCAGTG	ATCAGCCCAG	CAGGAATGTA	GATGGCAAAG
127981	GAGAGAGAGG	TTAGTGTACT	TATTCCCTGC	ATCACCCCCC	TGCTTGGTGG	GCAGCTCTTC
128041	CTCCACAGTC	CCAGCTCTGG	CCTAGCTCTG	GTTACAGGTT	CCCTCCCATT	GCCTCTTCAG
128101	ATTTAAAGGT	GTGTCTGTCA	GGGTATAACT	GGGAGCTAGA	AATTGCACTG	AAATTGAACA
128161	AAGAATTTTA	TGGGAATGGT	TGTTAACTAG	TTATAAGAGG	ACTGAAAATG	GAAAAGTGGA
128221	CAAACGTATC	AGAGATAGTA	ATGACAGAAA	GCAACTACCA	CCTCCAGGTT	TAGGAGAACA
128281	AGGAAAAGAT	TCTTTGAAGA	GATCCCAGAA	ACTGGGACCT	CTGAGGAGTG	TATGCTGGAC
128341	CACTGATGAT	GATATGTCTG	TAGATAGAGG	CATGATGAGG	CTGATTTTAG	GAGCATGGAA
128401	GATCTCCAAA	CTGAAGCCAA	CTGCTGTTAC	TGGATTCAAC	TGCCACTGCC	AGGTTGAAGA
128461	ACCCATTCTG	TGAGGATGTC	AACAAACAAA	GTGGGAAATC	TTTTACATC	CTTCCAGCCC
128521	TCTAGTCTTC	CTCCAGTGCT	TTCATATGGT	AGGGTTTGGG	GAGGTGGCTA	GCAAAGCGGT
128581	ATTGGAAAAG	ATAGAAGAGA	CTAAATCTTC	ATAACCAGCA	CAGGGTGACA	CTGGATCACT
128641	ACTGTTGCTG	ATCTTGGGCT	GCCTCATATC	CCCTGTCTCT	CCCATTAGCC	CTGTCACAAC
128701	TTTGTTAGATA	TCCCTTCATT	ATATGCCCTT	CATATATTCT	TTTGGTTTAA	CTTTTTCTGT
128761	TGGAATCCTA	ATATGGCACT	CCTCCATTTT	TCAGGACCAA	AAGAGTATAA	AAGATTATCT
128821	TTTACCAAAA	AAAAGACAAA	AAACTGATCT	AATTCCTGAT	TTGATCATTA	CACAATCTAT
128881	ACATGTATCA	AAATATCACA	TAGTACCCCA	TAAATATATA	CAACTGTGTC	CATTAAAAAT
128941	AAAAATTAAA	GAAAAGATGG	TAAATATAGC	TCTGTCAGGC	AGTGGAGGTT	TTACCACGAT
129001	GGCTGTTATT	TCCCCCATGA	AGGGGGGAGT	GAGGGAGCAG	CTGAAAGTAG	GTGCTTATAG
129061	GGGTATAGAG	GGGCTCAAAG	CTTTGAGAGA	GGAGAATGTC	TGAAAGAGCT	GCCAAATAGC
129121	ATGCAGGTCC	CATGGGGGCA	GAGCCTCTGC	TCATTACCA	GTGCCTCTTC	AATATCTACA
129181	CTTAAGCCTA	ACACAAAGTG	TGTGCTTAAT	AAGTATTTGC	TGAGTATGTA	AAGTGGAAC
129241	AGAACCAATC	TGGCAAACCT	TGTAGGACTG	GTGGGCAATG	AAGATCAGTC	AGGTAAAAATC
129301	TGTGGATATA	AATTTATATT	GATCAAAAAA	TTCAAGGTTA	GGTGTTTTTT	TTCAAGTCATG
129361	CTCAACGATG	CTTCAGCCAT	GCTCAACTCT	TCTGTAGCCA	CAGAAAAAAG	TTTACCCATA
129421	ATCGAGCTGT	GTCTGTGTCT	GAATAATGAA	AAGACCATGA	TGCAAGGGAG	TTGGAGACAC
129481	AGAAACAGTG	TTTGAAGTAA	TGGGTAATGG	AAGCATGCTA	CCAGGGAAAAG	GAAAGAAGTG
129541	GCAATAGGAA	GGAACAGAGA	TCTGTGCTCC	TATGTCCCCT	GAGCATATTC	ACATGTTAAA

Figure 8 (Page 40 of 73)

56/162

129601	GCTAATTCAG	TTTTCAATCA	TCATTAAAAAT	TTTGTTCCCTA	AATATATGGC	CATTATTTTC
129661	CACAACCACA	CTAAAACTTT	ATTACCTCTG	GCAAGTGACT	ATGCAAGTAA	CTAAGAGCAA
129721	AAATATCCAC	AACTACCATT	TGAGCTATCA	ATTTAGGGAA	AGTCATCTGG	CTATAATCTA
129781	AGTGACCCCTC	CACTGAATGT	CAGTATCTTT	GCATATGTGA	TTTAAATCTG	GGCCTTCGCA
129841	ACACCATGAA	CTGTTCTTGT	CTTGAATATC	CAGATTGAAG	GAAATAATCT	GAGTAGTTAC
129901	GAGTCCTGAA	GCTAGAAAAGA	TGGAAACCCC	ATTTGCTCAT	CAGAAAGCCT	TAGAGCTTGG
129961	GCGCTGGCGG	GTCCGTCTCT	ACCGGGACAG	AGGGGCTCTT	TCCTCCCCAT	CTGATAGTCT
130021	GATAACTAGA	GAAGCCGGCC	AACTTATTCT	CCAAGAAGGA	GCCATCTTAG	TTCTCTCTGA
130081	AATGTTTATA	TTTAGAAATT	ATTGTTTGTG	AGTAATTTAA	CCCCTTAATG	GGCTTGCCTT
130141	GTGGTCCATA	CCACTGAGTG	CAGAGCTTGC	CTGGAAGAAT	TGTGAGGGCC	ATTCCATCTT
130201	CCAGGCAGTA	GAGTTCAGTA	CTTCTTTAAA	ATTGCTGCTG	AACTCTGTAT	TTGAAAAGAA
130261	AGAATCATTT	GGGTGTGGTA	GCTCACACCT	GTAATCCTAG	CGCTTTGGGA	GGCTGAGGTG
130321	GGAGGATCAT	TTGATGCCAG	GAGGACCACT	TGAGACCACC	CTGGGTAAACA	TAGCAAGACC
130381	CTGTCTTTAG	AAAAAAAAAA	TACAATAAAA	TAAATACAAT	AAAAATAAAA	GCAAAAAGAA
130441	AGAGTCCATC	TTAGGGACAG	ACTGTAACTA	CTCACTGGAG	CTTACCTTTA	CATAGTTCAG
130501	GATCAATTAT	AATAAAACAC	TTTTGTGCAG	ATTCAATAGG	ATTATTTTAA	TCCCCATCAT
130561	CTCTCTGAGT	TTCCAGTCAG	TTTCTCTGCA	TGTAGACACC	CTTCTCCAGC	CCACCATTGT
130621	CTCTCTGCCT	ATAGCTCCAC	CAACAAATCA	GAACTTTTTT	TAAGTGCACC	TAGTGCACCT
130681	AGAGTCTACT	CCAGAATGCT	CATGGAGAAA	GTTCCTGAAA	GGTAAAACTC	TGAATGATAT
130741	TTGTAGCTAA	AGGGAGACTT	GCTAGAGACA	ATAAGCTAAT	AGTTGTAGAC	TTCAAGTAGAA
130801	GAGGAATGAC	ACTGCAATGT	CAGGGTGCAG	GACTTCAAGA	GGGCAGAGTA	TGGAAACCCA
130861	ATGGGAAAAA	TGCTCACCAG	GAACATGAAG	AGAAGGAATT	ACGTGTAAGG	ATTTCTCAAT
130921	GTGTTCCCAA	ATTTGCCAG	CAGAGGGAGG	CCTCGGGTTG	ATGGCAGGCT	GACCACACAA
130981	TTAAAGAAGG	CTGAACCTGG	GGGCTTTTAA	CAACCATCGT	GGGCTCTACT	GTAAGCATTT
131041	AGAAAAAGAA	AGTTATCCAT	TCAAAAATAT	ATATATTTTT	AAACTTCAGA	ACAAAATTAT
131101	GAAGAGCTAT	ATTTACTTTT	CTACATTCTA	ATTTTATATA	ATCTGAGTAT	ATTTTGCATA
131161	TATTGTTATA	GTACATATTC	AATTTTGTAT	TTTGCTGTTT	TCACCTTAAC	ATTTTACTTA
131221	GATTACTCTG	TGTTTATAAT	AATCACTTTT	TTAAAACTTT	TATTTTTTAT	TATTTATTTT
131281	TTTTTTTGAGT	CAGAGTCACA	CTCTGTGCGC	CAGGCTGGAG	TGCAGTGGCG	TGATCTTGGC
131341	TTACTGCAAC	TTCCACCTCC	TGGATTCAAG	CAGTTCTCCT	GCCTTAGCCT	CCTGAGCAGC
131401	TGGGATTACA	GGTGTGCACC	ACCAAGCCCG	GCTAATTTTT	GTATTTTTTAG	TAAAGACGGG
131461	GTTTCACCAT	GTTGGTCAGG	CTGGTCTCCA	ACTCCTGACC	TCATGATCTG	CCCACCTTGG
131521	CCTCCCAAAG	TGCTGGGATA	ATCACTTTTT	ATGCTGCATA	ATTCTTCAGA	TTTGTTCAGTA
131581	CGACTGTATT	TACACTCATT	TGTTTTATTA	GAAAGAATTC	CAGAATATTT	TGGCTGCCCT
131641	AATTAATTTT	ACAATTAATA	TGATTTTGAA	ATTGGGTATT	GGCTCCTTCT	GAATTGGTTT
131701	ATTAAAATAT	ATTCTAATGT	AATTTATGAC	ATTTTCATCA	TATTAGCATA	TTTATTCTGT
131761	TAGAATTTCA	TAATTTATAA	AGCTACAAAC	TGTATGTGAT	ATAGCTTGTA	ACTTTATCTC
131821	ATAACTTTAT	GCAGTTACAA	GTAGAAATAA	AATGTTCCCC	TCAAGATTGC	TTAAAATTTT
131881	ATTATAAACA	AGTGTAACAA	ACAAAATCAC	TAAAACACTC	CCTCTTTTTT	CCCCCAAAAT
131941	GCATGTTTTCC	ATTTTAACAG	AACCCGTATT	TAATCAGCAG	ATTTCTATGG	TGGCTAGATT
132001	TGTAGACTAA	ATATTAAAAG	TCCCAAAGCA	AATGCATTTT	TCTCTTAAAT	TTTACTGACT
132061	TTTTTTTTTT	TTCTTTTTCT	GAGACGGAGT	CTTGCTCTGT	CGCCAGGCT	GGAATGCAGT
132121	GGCACAATCT	CGGCTCACTG	CAACCTCCGC	CTCCCGGATT	CACGCCATTC	TCCTGCCTCA
132181	ACCTCCCGAG	TAGCTGGGAC	CACAGGCGCC	CGCCACCACG	CCCAGCTAAT	TTTTTGATTT
132241	TTTAGTAGAG	ACAGGGTTTC	ACCGTGTTAG	CCGGGATGGT	CTCGATCTCC	TGACCTCATG
132301	ATCTGCCAC	CTCAGCCTCC	CAAAGTGCTA	GGATCACAGG	CATGAGCCAC	CGCGCCCCGC
132361	CTACTGACTT	TTATCCAAAG	AAAATATAAG	AGCTCTTCAT	CATAACGTAT	GTTTCTTGCT
132421	CTTGTTATTA	AATATGACAC	ATTTAGACTT	AACTGATTT	GAAGGTTTAT	GACATTGTTT
132481	AAGTTATTAC	ATAATTAATT	CATAAAGATA	ATGACTAGTT	TGAACACTG	ACAGCTCACA
132541	CATCATCAGT	TGAACAGCAG	AAAGCTTACT	AAGCTACTTT	CTTATGTTTC	TGCTCTCCAG
132601	CTACTAAAAG	AAACGAAACC	CTTCCAGGTG	TTAAGGCAAA	ACTTTCCTCC	CCCTTCTTTC
132661	TATAAATCTG	ATTCCATGTT	AGTGAAATTT	CTACTGATGG	CTTTGGTTTC	CTCTATAGTA
132721	GAATAGAGAT	CCTATGGCAA	AAGTCATGTC	TGACATGGTA	GCAAATAGAA	ATGGGGAAAA
132781	GGAAGGTCTG	CAAGAGCCAA	TGTGGGAAAT	GGGGAGAGGA	CTGACTACAA	AAACCCAGCA

Figure 8 (Page 41 of 73)

57/162

132841	GGAATTCCAG	AAGAAAAC	CTCAGGACGG	GCACATTGGC	TCATGCCTGT	AATCCCAGTA
132901	CTTTGGGAGG	CCGAGGTGGG	CAGATCACTT	GAGTCCAGGA	GTTTGAGACC	AGCCTGGTCA
132961	ACATGGCGAA	ACCTCATCTC	TACAAAAAAT	AAAAAAATTT	GTCAGGCGTG	GTGGCATGCA
133021	CCTGTAGTCC	CAGCTACTCA	AGAGACTTAA	GTGGGAGAAT	CACTCGAGCC	TTGGAGGTGG
133081	AGGTTGGTGA	GCCGAGATCA	CGCCACTGCA	TTCCAGCCTG	GGCGACAAAG	TGAGACGCCA
133141	TCTCAATCAA	TCAGTCTCCT	CGAAAAGCAA	CATTATGGAG	AGACAGGATT	CCGTCAAGGC
133201	CTGGGGCACA	CAGGAAAATA	TTAAGGCAGA	AGAGAGTTTC	CTCCCCACAC	CACACCGTAT
133261	CCCACAGGCA	CTGCGGATGT	GCATATGCAA	GAGGGGTGTA	TCCTAAGAAAT	TTAGAGTCAC
133321	AGAGGAGGAG	GCACCAAGCA	GACTGTGGAG	AAAGTCATGA	CCAGAAAGGG	ACAGAATGTA
133381	AAGCTTCAGC	TGATTATCTG	GCCTCAGGGA	TTCCAGAGGA	ACTGGTCCCA	ATGGTCTCCT
133441	GGTGATGTAG	GTTCTTAGGT	TTCTTTTACA	GGGGTTTTCT	GGGAGATCGT	TGACCCAGTT
133501	AGCATTCAAG	CAACTTCCAC	CCTGCACTTT	TATTCCTTCC	CCTTCACCTG	CTTAGGTTTT
133561	ATCTGTCCAG	GAAAATAATA	TAAAAATTAT	GAGCCCTGGA	CATGTACCTG	TAAAGCTCCT
133621	TAAAGATGAT	GCCTTCTAAC	TCCTCATTC	ACAGATACAA	AAACATTACA	ATAAAATGAC
133681	TCATGCAAGA	CACCCAGGTA	GTTTATAGCA	GCTAATAAAA	ACAGAATAAC	TATAAAATAT
133741	GGTAAGTTTA	TAAAAGTTAC	ATTGAGTATA	CTTTATAAGA	ACTGCTTATT	GAGTTTGCCT
133801	AATAACCACA	CAGCACATA	ATAATATGTA	TATATTTTTA	AATATGTGTA	AATATGTGTA
133861	ACACAACTT	GTAGAAGGTA	TATCTGAGTA	CAACCCTATT	CTGTTTGGTT	ACCTTTTCTA
133921	GTTCAATTATG	TAAGTGGCAT	AGCTACCTAA	GGACTTATGC	TTATAAATGT	TACTCAAAAA
133981	AATACAGAGG	ACATATGTGG	ATAGATAATG	GAAGAGATAA	GATAGGTAGG	TTGAAGGGTT
134041	GGGCTGCCCC	TCCACACCTG	TGGTTGTTTC	TCGTTAGGTG	GAATGAGAGA	CTTGGAAGAG
134101	AAAGAGACAC	AGAGACAAAG	TATAGAGAAA	GAAAAAAGG	GGTCCAGGGG	ACCGGTGTTT
134161	AGCATACGGA	GGATCCCACC	GGCCTCTGAG	TTCCCTTAGT	ATTTATTGAT	CATTATTGGG
134221	TGTTTCTCGG	AGAGGGGGAT	GTGGCAGGGT	CAAAGGATAA	TAGTGAGAGG	AAGGTCAGCA
134281	GGTAAACACG	TGAACAAAGG	TCTCTGCATC	ATAAACAAAG	TAAAGAATTA	AGTGCTGTGC
134341	TTTAGATATG	CATACACATA	AACATCTCAA	TGACTTGAAG	AGCAGTATTG	CTGCCAGCAT
134401	GTCCCACCTC	CAGCCCTAAG	GCAGTTTTC	CCTATCTCAG	TAGATGGAAT	ATACAATCGG
134461	GTTTTACACT	GAGACATTCC	ATTGCCCAGG	GACGAGCAGG	AGACAGATGC	CTTCTCTTG
134521	TCTCAACTGC	AAAGAGGCGT	TCCTTCCTCT	TTTACTAATC	CTCCTCAGCA	CAGACCCCTT
134581	ACGGGTGTCTG	GGCTGGGGGA	CGGTCAGGTC	TTTCCCTTCC	CACGAGGCCA	CATTTCAGAC
134641	TATCACATGG	GGAGAAACCT	TGGACAATAC	CTGGCTTTCC	TAGGCAGAGG	TCCCTGTGGC
134701	CTTCCTCAGT	GTTTTGTGTC	CCTGAGTACT	TGAGATTAGG	GAGTGGAGAT	GACTCTTAAC
134761	GAGCATGCTG	CCTTCAAGCA	TTTCTTTAAC	AAAGCACATC	TTGCACAGCC	CTTAATCCAT
134821	TTAACCCCTGA	GTTGACACAG	CATATGTCTC	AGGGAGCACA	GGGTTGGGGC	TAGGGTTAGA
134881	TTAACAGCAT	CTCAAGGCAG	AAGAAATTTT	CTTAGTACAG	AACAAAATGG	AGTCTCCTAT
134941	GTCTACTTCT	TTCTACACAG	ACACAGTAAC	AATGTGATCT	CTCTCTCTTT	TCCCCACAGG
135001	AGGTGATGGC	CGGAAGAACA	TGGCAGAGGG	CAAAACAAAA	CAGCATTGGG	AACAAGCTCT
135061	GTTTAAAGAG	AGACTTGTGA	ACAGCAAAGA	GTAGAAAGGG	TTCTCTTACA	ACTGAAGCCC
135121	ATGGAAGACA	AATGTGTACT	GCGTGAGTTT	TAAGGCAATA	GGAGTAGTGG	GACCTAGGGC
135181	ACACCAGAGA	GCATATTAAC	TCTCAAACCT	TTAAAAACAT	TATATCTGCT	GGACACAGTG
135241	GCTCACACCT	TAATCCTACA	ACTTTGGGAG	GCCGAGGCGG	GCGGGTGTAG	CTTGAGCCCA
135301	GGAGTTCGAG	ACCAACCTGG	GCAACATGGC	AAAATCCCGT	CCCTACAAAA	CAAACAAACA
135361	AAAAACAAA	TTAGCCAGGC	ACGGTGATGC	GTACCTGTGG	TCCCAGCTAC	TCAGAGGCTG
135421	AGGTGGGAGG	ATCGCTTGAG	CCCCGGGAGG	TTAAGGCTGC	AGTGAGCCAT	GATAATGCCA
135481	CTGCATCTCA	GCCTGGGCAA	CAGAGGGAGA	ACCTGTCTCA	AAACAAAAAC	AAAAACACAC
135541	CATACCCAAC	CACAATGCAT	CTGTCTTAAG	TACCAGTACC	ACACCCCTCT	ACTCACTACT
135601	AAATAGGTGA	GTTCCCAATC	CCTGGTAGCA	GGTTTAAGCA	TGTTATATTA	AAGGTCTTAG
135661	GCTAGTGACT	CATTCACTCA	TTAAACAAAT	ACTTATTGTG	CATCTACTAT	AAACTAAGTA
135721	CTGTGCTAGG	TACAAAAGCA	AATAATCTAA	GCTCTATAAA	CTTTACTTTC	TTCATCAACA
135781	AAATGGAGAT	GTTTTAGGCA	TCTACTCATC	ATTCTGAGCT	CCATCTTTTG	TGACTGTAGT
135841	TGGCAGAGCT	TTTTATCAGT	TTCTCTAAAT	AGCTCTACCA	GTCCCTGGTG	GATGCTGGCA
135901	TGCCCCAAGG	ATCCATCCTG	ATGGCCCTGT	CTGCTTACCT	TACCTGCCCTG	CCTTTGCAGC
135961	ACCGCTCTGC	TCTTCTGCAG	GACTTCCCTT	ATCCTTTGGG	GTCTTGCTGC	TCTTAGGCTG
136021	CTCTGCTTGT	TTTGATCTGC	TTTGCATCAC	ATGTATGTAA	AGGTCCTTTC	CTTATTTACC

Figure 8 (Page 42 of 73)

58/162

136081 CATGACCAAG GTATTATGAG ATTCTGGAAT TTCCCCAAAC CACATTGATT GCTGGGAGAA
136141 TAGAAGAAGT GGATTACAAG TGGAACTTAG AAGGGGAGTA TTCGAGAAGA CGTCTCTGCA
136201 AATCCATTTA GAGAGACCTT TCTCCAGTGG TGACTIONAAG ATGCAGCTCC TTTCATCCTG
136261 TGGCTTGGCC ATCTTCAGCA CATGGCTCCC AAGGATGTCC TCAGGATGGT CTCTAATCCA
136321 AGGAGCCTGA AGAGAAAAAA AGGCATGGAG TATTGTGAGT GGTAGGTGGT TATGGACCAG
136381 TTATGGAAGA ATACACATCA CTTTTGCCCA CCTTCTACTA ACCAGAACTC ACACAGCCAT
136441 AGACACTGAC AAGTAGGACT TAACAAGAAT CTAATTTTGA GTCTAGGAAT ACGACTGTAG
136501 CAAATATTTA ACAGCTTCAA ACACAGGTGC ATTGCTATCA CTATGCTTGG CCCAGGCCTG
136561 TCTCCCTTTC CTGCCATGTC ACAGGGGCCA GCATTTATGT CTAGATTGGG TTGGTTGGGA
136621 TATTAAGACA ATAATGAACC AATACAACAT CTTGAGCATA AAACCAACTG ATACAATGAT
136681 GTACAAGTCA GATGATTCTG ATGATTATGA ATTATGTCAA TAAAAGAAAT GTGATAACTA
136741 AGGTAATTTT TGTTTTGGCA AATTTTTGTT TGTTTCATGAC AGGATGAAAT CCTGTCAATT
136801 GTAGCAACAT GGATGGAATT GCAGGATACT ACATTAAGTG AAATAAGCCA GAAACAGAAA
136861 GTTAAACACC ACATGTTCTC ACTTATATGC AGAAGCTAGC TAACTAAGTA AATAAGTTTA
136921 TCTCATTGAA GTAAAAAGTA CAACAGAGAT TACTAGAGGC TGGGAATGGT AGGGGAAAGA
136981 GATGATAAAG AGAGATTCGT TAAAATAAGT TACAGCTAGA TAAGAGCAAT CAGTTCTAGT
137041 GTTCTATTTG TACTACAGAA TGGCAATAGT TAACAGTAAT AAATAATTTT AAAGAGCTAG
137101 AAAAGAGGAC ATTGAATGTT TCCAACACAA AGAAATGAGA AATGCTTGAA ATAATGGATA
137161 TTCTAATTAA TTACCCTGAT CTGATCACTA TACACAGTAT GTATAAAAAAT AACACTATGG
137221 GCTGGGCGCA GTGGCTCACA CCTGTAATCC CAGCACTTTG GGAGGCCAAG GTAAGCAGAT
137281 CACTTGAGGT CAGGAGTTAG AGACCAGTCT GGCCAACATA GTGAAACTCC ATCCCTACTA
137341 AAAATACAAA AATCAGCCAG GCGTGGTGGC ATGTGCCTGT AATCCCAGCT ACTCAGGAGG
137401 CTGAGGCAAG AGAATTGCTT GAACCCAGGA GGCGGAGGTT GCAGTGAGCC GAAATCGCGC
137461 CACTGCACTC CAGCCTGGGT AACAGAGCAA GGCTCTGTTT CAAAAATAAA TAAATACATA
137521 AATAAATATT TTTTAAAAAA AGAACATCAC TATGCACCCC ATATATACAT ATAATTATTA
137581 TGTCAATTTG AAACATAATT TTGAAAAATG AAAAAATGAA ACACAAATAT GAATCAATCC
137641 TCTCCAAGTT GATATACTTA AAAGGAAAAA AGTCCGAGGG CTTAACTAT TCAATCAAAA
137701 TTTTATTAAA ATGCTATAGT AATCTGAAA GTATTTTCAA ATGAATTGGT ATAAGGTTAG
137761 ACACAAAGAT CAGTGAAACA AAACAGAGAA CCCAGAAATA GATTACACA TCTATGGACA
137821 ACTGGTTTTG ACAAAGGTGT CAAGGCTATT TAATAAGTAA AAAAATCGTC TTTTCAGTAA
137881 ATGTTTCTTG AACAAGTAGA CATCCGGTGT GGGGGAGAGG AGCAGGAGCC TTACCTCAAA
137941 CTTTATGCAA AAATTAACCTC AAAATAGACC ATAGACTTAA ATGTAAAAGC TAAATTATA
138001 AAACCTCTTT AAAAAATAGG AGAAAATCAT CAACACCCTA GGATTAGCAA AGATTTCTTT
138061 AAAACAAAAC AACAGGTTTA TAGTTTATAA AACATAAATA ACAAATGAT AAATTTTCATC
138121 AAAAGTGAAA ATTTGCTTTT CAAAAAACAT TATAAATGA AAAGCAGGAG GCTGAGGCAT
138181 GAGAATCACT GGAACCCGGG AGCTACAGGT TGCAGTGAGC CAAGATGGTG CCACTGCACT
138241 CCAGCCTGGG TGACAAAGTG AGACTCTTCC TAAAAATAA ATAAATAAAT AAATAAATAG
138301 AAAAGAAAAA GAAAAATCAC AGGCTGAGAG AAAATATTTA TAATACATGT ATCTGACAAA
138361 GGACTCGCAC CTGGAAAATA TAAGGAACCT TATAACTTAG TAAGATGACA AGCCAAAACA
138421 AAGAGTAAAA GTTTTCAACA GACATTTTAC AAAAGAAAAC ATACAAATGG CCAGTATGCA
138481 CATGAAAAGA TTTTAAACAT CATTAGTTAC TAGGGAAATG CAAGTCAAAA CCACAATGAG
138541 ATACTTCACA TTCAACAGAA TAGCTAATGT TAAAAGGACT GACAATCCCC AGGGTGAGCA
138601 AGGGTGTGGA GGAACTACT CTCATATATT GTGAATGTAA GAGGACAATG TTACAACTAC
138661 TTTGAAAAAA GTTTGGCTGT TTCTAACATA AAATTAAACA CTTATACAGC CCAGCAATAT
138721 TTCTGGGTCA TTTCTCCAG ATAAATGAAC ACATGTCCAT ACTATGACAT GTACAAATGT
138781 TCATACTGGC TTTGTTTCAC AATGCTATAA ACTGGAAACA ACCCACGTGT CCATCAACAG
138841 GTGAATGGGT AAATAAATTG TAATATATCG GCCAGACGCA GTGGTTCATG CCTGTAATCC
138901 CAGAACTTTG GGAGGCCAAG ATGTACGGAT CACCTGAGAT CAGGAGTTTG AGACCAGCCC
138961 ATCCAACATG GTGAAACCCC ATCTCTACTA AAAAATTAGC TGGGCATGGT CACGGGCGCC
139021 TGTAATCCCA GCTACTCGGA AGGCTGAGGC AAGAGAATCA CTTGAACCGA AGAGGCGGAG
139081 GTTGCAGTGA GCCAAGACCA TGCCATTGCA CTTCAGCCTG GGCAACAAGA TGGAACTCC
139141 ATCTCAAAAA AAAAAAAAT TGCAATATAT CTATATCTTG GAATATTATA AAGCAATAAA
139201 AGGGAATAAA CTAATGATAT ATACACAAAA TGGATGAATC TCAAAAATGT GAAGGAAAAA
139261 AAAAAATACA TATGATATAA ATTCCATTCA TATGAAATTT TAGGAATGGG AAAACTAAGC

Figure 8 (Page 43 of 73)

59/162

139321	TGTAATTATG	GAAAGTACAT	CAGTGGCTGC	CTGGGGCCAA	GAGGATGGAA	GAGGCGGCAC
139381	AGGTGATACT	ACAAATGGAA	ACTATCTAGG	TTGACGGAAG	TGTTCTGTAA	CTTGATTACA
139441	GTAAGTAACG	TTTGGGTATA	TAAAACGCAT	CAAAATTGTAT	AATTAATACA	GGTGTATTTT
139501	ACTGTGTATA	AATTATTCCT	CAATAAAGTT	GATTTTTCAT	TAAATATATT	ATTTGCTAAA
139561	ATGAGGAGAG	ACAACTATTA	TCTTAAATA	GTTAAGCACA	ATAAAAATAC	TACAATCAAC
139621	TCATTATATA	TGGAAATTAA	AGGAGAAAAA	TAGTGGTATG	ATTAATTAAA	ATAAAAAGAA
139681	AACCTTCTAA	ATTTTATCTT	AGCTCATAGT	TGTAAGAGCT	GCCATCCCTA	ACCAAGGCCA
139741	CCCTTGACCC	TTTCTCATGT	TCCATCTTTC	TGTTTGTTTC	ATAGTTTATG	TCTCACCAAA
139801	ATCTATCAGA	TAAACGTATT	CATATGAAGA	TTTAAATATA	TTACATGTTA	AGCCTTAGCG
139861	AATACCTCAA	TATCTAAAGA	AGGTACAAAC	AAAACAAAAA	TCAACACTTA	GTTATAAGAG
139921	ATTACATACT	CTCCAGGGAA	GACCTGAAGA	CTAGCCCTTT	TCTGGATCCC	ACTAGCCCTT
139981	CATCCCCTC	CAAGCCCTCC	CCTCCAATCC	CATATGCATC	GGGCATTTCAT	ACAAATAAGA
140041	CCATCAGCTC	TGGATATCTG	TACTGATTGA	TGCTCCTGCT	AACACCTGA	ATGATTGCGA
140101	TGTAAGGACA	GCACCTGCCTG	AATCCTATTT	ATCTCTCGCT	ATGCCATAGC	GGCCTTCCAT
140161	GCTGATGGCG	TGTTTGAGGA	TCCAGAGGGG	TCTTTGGTTG	GCAGGATTGT	TTTATTTCCC
140221	CAAGAGGAGA	GCCTTGATGC	AAAAATAGGT	GAAGAAATCA	GTACAACAAA	ACAGAAAGCC
140281	TAGAACTAC	TATGAACACA	ATAGAGCAGA	AGTAGCCTTA	AGAGTTGGTG	GAGAAAGGAT
140341	GGTCTATTCA	ATTACCTGGG	CTGAGAAACT	GGCTTTCATA	TGGAATAAAA	ATAAAATTAT
140401	AGCTATACCC	CATATCATAC	ACAAAAGTTT	CTACATCTAA	CAAAGACACA	GATAGAAAAAT
140461	GTTTTTAAAT	TTTAGAAGAA	AATAGTGCAG	AATTTTAGTG	CAGAATTTCT	TAGACTAGAT
140521	GCAAAAACAA	AAATGATTAA	AGTGGCCAGG	CACGGTGGCT	TATGCCTGTA	ATCTCAGCAC
140581	TCTGGGAGGC	CGAGGTAGGT	GGATTAGTGG	AGGTCATGAT	TTCGAGACCA	GCCTGGACAA
140641	CATAGTGAAA	CCCCATCTCT	ACTAAAATAC	AAAAATTGGT	AGGGTGTGGT	GGCTCACGCT
140701	TTTAATCCCA	GCTACTTGGG	AGTCTGAGGC	AGGAGAATCA	CTTGAACCTG	GGAGGCAGAG
140761	GTTGCAGTGA	GGGGAGATGG	CGCCACTGCA	CTCCAGCCTG	AGCAACACAG	CGAGACTCTG
140821	TCTCAAAAAA	ATCTAAAAAT	AAAAAGATTA	TTTTTAAAAA	ACTATTTTAA	ACAAAAAAA
140881	TCGTTTAAAT	GATATGACAC	ACTACATCTA	ATATTTGGAA	AAGTACTTCT	TAATACTTTT
140941	AATAAAAAGA	GGCGCTGAGA	GCATACAACC	TATCCTCAGA	AGAGTGTGTT	ACCTCTAGGA
141001	GGGACGCAAG	CGCGTTCTTC	CTTCATTTTA	ACTGGTCATT	TTCATTTTAT	TCAGGAACAT
141061	CTGAAGTAAA	CACAGTCACA	CGTTAACCTT	TAAAAATCTA	GGAGGTGCGT	ACGCATAGTT
141121	CCATTACTTC	AATTTTTGTG	CTTTTGCAAT	TTAAAATATC	ACAGGGAAGC	TCGGTACAGC
141181	TTCAAGGCTA	GGAGGGGTGG	CTCTCTCTTA	AGCCCTGTCC	CCGCCAGCCC	CAGACCTCTC
141241	GTCCCGCCCC	CATTGCCCAG	TCCCCACCCT	CACTTCCCCA	TTTCCCCACT	CCCGCGGTCT
141301	CTTAACGCAC	CTCGTTTTTC	GTCCAGTGGA	CTCAGACCTG	TAGTCTTCCA	CCAGGATCGG
141361	CTCCTTTCCC	GGAGCTCTCG	CTCTTAGAGG	AAATTGAGAG	AAGCATCAGC	GGAGACCCAT
141421	CTGTGGCTCT	CCAGAGGGCG	CGGCATTTCAG	ACCCAGATC	CAGCTGTGAG	AACGGACCCC
141481	AGGCTCACAC	CAGGCCGTGC	GGAGGCGGCC	CACCAGAGGC	GCTAGAAAAC	AAGCCTCGCG
141541	GGGAGGCGCG	CAGGGCGACT	GCAAGCTGTA	GGGGGCGCTG	GCGCCCTCAC	AGGCCAGGGG
141601	CAGGGCCGGC	GCTGCGGGCG	GGGCTCCTGC	GGCGTGAGGG	GCGGCCCCAG	GCCAGCAGCT
141661	GCGCCCTGGC	TGGGAGCCGG	GGAGCATTTG	CTGCTCTGCT	GGACCTGAG	TCTGGCGGCG
141721	GGCGGCCCTC	TCTCCGCTCC	CCGCCCGCCA	TCCCCCAACT	CCCGATCTCT	CTGCTGCGTC
141781	TGGCCTCAGG	CTGAGACCCC	AACGAATCAT	TCCCCGCATG	GGAACATTTT	ATGATATAAC
141841	TGAATTCAGT	TTTATGTATA	ACTGAATTAC	GGATATGAGA	ATCTCAAATG	AGGACGAATG
141901	GTTTTTACGC	ACAAAACATG	AGACACAAAT	CTGTAAGAAA	TATAAAGTCG	TGACCACGTC
141961	CTTTCAGAAC	TTTAACCTGT	TTGCTGAAGT	ACGTCAGTAA	CAATGGCAGG	GAAAGGGTAT
142021	CTTAAATTTT	ACCACAGCCT	CAAAGAGGCC	ATTTCTGTGA	TCCGCTGAGG	CTTGGAGTCG
142081	GCCTTCTGAC	CACGAGTCCT	GCGGCTATGA	AAGAGGAAGC	CGCGTTTCAG	GGCGTCTCTG
142141	CGAGTCGTGC	AGCCCGCCCT	GCTCCAGCTG	GGGACACCGG	TGGTCACGGC	GCTTTCCAGC
142201	TGCAGATCCA	GGCGGCAGCC	CAAGATTTGG	TCCAGCCGCC	AAGGGGTGGC	TCGAGTGACT
142261	GACGGGCCCT	GAACGCTCCC	AGGACCCACA	TCTGGAGAGG	GAGGTGGGGG	TGGGGTGTCT
142321	AAGTCATTCT	TGGGGCCCCCT	GGGGGCGGGC	ATGGACCTGG	GTAAGGCCAG	AGAAATTGAC
142381	ACCTCGTGAC	ATCCCTGGAA	GAGAAGTACG	TTCAGTGTCA	CTCCAGAGCT	GAAACCGCCT
142441	TCTGGCTGGT	CCCTCCTCAC	CTACATACTT	TTCTAATTTG	TCTGGAGCAG	GCCGGGCATC
142501	TGTATTATCT	GGTTATTTAA	ATATCTGGTT	ATTTAAAAGC	TCTCCATTAA	ATTACATAC

Figure 8 (Page 44 of 73)

60/162

```

142561 ACGAAAATAA AAATTAAAAA AAATTTTAAA AAAAAAGAAAC AAAAGCTCTC TAATGACCAA
142621 GTCCTACACG ATAGTGAATA AATTTTTTTG TGTGGTCCCT AAAATTGAGT TCATGCCTTT
142681 TCTGAAGTAA TAGACGCCCCA GAGAAGGGAT CGACTTACCC ATCATGCCAC AGAGATTAAT
142741 TGGCCCCAGA ATTCTTTAGC AGACCGTGTA TATGAACGTC CTTTGCAATC ATATAAATTA
142801 ACTGGGAAAA CCTCATTTAG TATGTTACAT GCCTAGCGTT TTGTGCCTGA ACACCTTACA
142861 AGAACCAGGG ACTATTGCCC CAATATTATA TTTCAGGAAA GGAAGGCCCA GACAAATGGT
142921 GTCACTGGTC CACTTTCACC CAGTTGGTAA ATGAAACCAG AAATTATAGC TGTACCACAG
142981 AAAGGTGAAA ACGTTTCTTT TATAATTTCA CATACAATCT TTAATGGACC CAGTGTCCAA
143041 CACATTAAG CAAGTGCTCA GGAGTGACAT CAAGATGTAA AAAATAGTCC TGTCCTCAGG
143101 GAGTTTAGGT CTTGGAGAAA AGAGACCCAA GGAGACACAA GACAAAGGGG AAAGAGAAGG
143161 AGCGCTGAA ACTGAGGACC CTGCCTGTGG ACTGAAAGTA GGATGGGGAC ACCCGATGCC
143221 CGGAATATGA CAGTTTGAG GGGCCTGAAG GACTCTTCTA TTCTCTATCA GAAAAACAGA
143281 ATTACTCTCC TAACCAGAAA AGGTATTCTA ATTTATATTT TCCATCACAG CACTTTTCTG
143341 GTGATAATTT AATGTGTTTT AAAAAATGTA TCACAGTGAT GGCCTGGTGT GAAATAAATA
143401 ATAAAAATTT AAGAAATAAA AAATATAAAA ATCTTTTATA TAGACATTAG GAGTTACAAG
143461 GATAACTGTG AATTATAATT AGTAATTAATA TTGAAATACT GATTATTTTC ATTTTATTTT
143521 AATTATTTAA TAAAACCTAT TTAACATTTA ATATTTATCA GTAATTAAT CTAATTGTTA
143581 ATATTTATTA TTATAAATTA TTTTAGAATT AAAAAATAAG GTAGAAGCGA GGCATGGTGG
143641 CTCAAGCCTG TAATCCCAAC ACTTTGGGAG GCTAAGGTGG GAGGATTGCT TGAGCCAGT
143701 AGTTCAGAC CAGCCTGGGC AACATGGAGA AACCCTGTCT CAATACAAAA AAATGAGCCA
143761 TGTGTGGTGG TGCGTGCCTG TAGTCCCAGC CATTCTGGAG GCTGAGGTGG GAGGATGACT
143821 TGAGCCTAGG CAGTCAAGGC TGCAGTGAGC CCTGATCTTG CCACTGCACT CCAGTCTGGG
143881 CAACAGAGCA AGACCCTGTG TCAATATACA TATGGACAAA CTTAAAAATTT AAAATGAAAG
143941 CATACTACTG ATACAGAATT GAGTAGAGAT GCAAAGCTAG TCCTATAACC AGAACAATAA
144001 AGATAAAAAG GAGAGTGGAA GAAGGTATGT CATGAATTTT ATGATAAATG GCAATTGCAA
144061 ATATCCTGTA GCAGAACAAA ACAACAAAAC TGTAAGATAAA ACATATCCAA CCCTTTGGAA
144121 GGCCAAGGAG GGAGGATTGT TTGAGCCCAG AAGTTGGAGA CCAGCCTGGG CAACATAGTG
144181 AGACCCTGTA TCTAAAAAGG AAGAAAGAAA AAAAAAAAAA GGATGATAAA GTAGACAATA
144241 TTGAAAGCCA TTTTCTGCAA ATACATAGTG AATTTGATCA GTAATTTTCT TCCAACAGTG
144301 CAAAAATGAA TAGATATTAG TTGCCTGAAA TAAAAATCAA ATATCCAACA AAAAATATTG
144361 ACTATCTAAT AGTATCTAAG CTAGTAAATT TGGCCAGTTA TAAAATGTCT TAAATTTTTA
144421 TTTAAAAAAA GAAAACCATA TTTATAAGAA GAGGTGATAA AGAGAAATTA TTTCAGTTAT
144481 GAAGATTTTG TTAGAAAAC TATGAGAAAA AACTATTTT TGTTTTCAA AAGTGAAAGA
144541 TTAAGTTACC AAACAGTTGC TAAAGAATAC CAGATGGCTG AGCGTGGTGA CTTATGCCTG
144601 TAATCCAGT ACTTTGGAAG GCCAAGGCAG GAGGATCATT TTAGGCCTGG AGTTCGAGAC
144661 CAGCCTGGGC ACTGTAGCAA GACCCGTCTC TATTAAAAA AAAAAAAAAA AAAAAAAGA
144721 ATACAAGACC TTGCTAACAA TAGCAAAGAT CAATTAATTC AAAATTTGAA AAAGTGAAT
144781 TTATTTAGCT TTAGAGTACT CTCGTGATAT GAGATTGCCA AATTAATACT TTGGGTGCAT
144841 TTCTTTTCTC AAAGGACTTG CAAATTTACA AAGAAGTGT GAAGAAAAGC CACACATTGG
144901 CAGGTAATGT TTGCAAAAGA CAGATCTGAT GAAGAACAAT ATTTTGTAGAA TATACAAAGA
144961 ATACTTAAAA CTCAACAGTA AGAAAAATAC CTGATTTAAA GCAGGCCAAT GACCTGAACA
145021 TCTGTTTACC AAAGAAGATA CACAGATGCA AGTATGCATA TGAAAAGATG CTTGACATCA
145081 TGTCATTAGG GAACTGCAAA TTAAACAAG TAGATACCAC TGCATACCTA GTAGAATGAC
145141 CAAAATTTAG AACACTGTCA GCACCAAGG TTGCAAAGAT ATGTAGCAAT AGTAACTTGT
145201 TCATTACTGG TGAGAATGCA AAATGTGCAA TCACTTTGGA AGACAGTTTG GTGGTTTCTT
145261 ACAAAGTAA CCATACTTTT ACCATAAGAT TCACCAATCA CACTCCTTAG TATTTATCCA
145321 AAGGAATTGA AAACCTTATCT CCACACAAAA ACCTGCACAT AGATGTTTAT AGCAGCTTTA
145381 TTCATAATTT ATCCAAAAC TGGAAACAAG ATGTCTTTCA GTAGGTAAGT GGATAACTGT
145441 GGTACTTCTG AATAATGGAA TGTATTTTAG AGTTAAAAAG AAATGCATTC ACTTTGGGAG
145501 GCCGAAGTGG GTGGATTGCT TGAGGCCAGG AGTTTGAGAC CAGCCTGGTC AACATGGGAA
145561 AACCCCAATT AGCCGGGCAT AGTGGCGTGA GCCTGTAATC CCAGCTACTC GGGAGGCTGA
145621 GATATGAGAA TCGTTTGAAC CTGGGAGATG GAGGTTGCAG TGAGCCAGTG CCACTGCACT
145681 TCAGCCTGGG CAACAGAGCA AGACTCCTCT GTCTCAAAAA AAAAAAAAAA AAGAAAGAAA
145741 AGAAAAAGA AAAAGAAAAA GAAAAGAAAC GATCAAGCCA TGAAAACACA TGAAGGAAAC

```

Figure 8 (Page 45 of 73)

61/162

145801	TTAAATGTAT	GTTACTAAAA	AGCCAACCTG	AAAAGACTGC	ATACTATATG	ACTCCAACCTG
145861	ATGCAGGGCA	AGCAAGCCAA	AAATTAGGGC	TTAGCCCGGG	AAGAAATCAA	GGGTGAAGTG
145921	GTGGTGTAG	CAACTTTTAC	TGAAGCAGCA	GTGTACAACA	GCAGAACAGG	TACTGCTCCT
145981	TGCTGAGCAG	GGCTAACCCA	TAAGTAATGT	GCCCAGAGTA	GCAGCTCAGG	GGCAGTTCTG
146041	CAGTAATATA	CCTGCTTTTA	GTTAAGTGCA	TGTTAAGGGG	GATTATGCAG	AAATTTCTAG
146101	AAAAAGAGTG	GTAAC TTCG	AGTAGGTACA	GAGGAAAGAA	GTCGATAATG	TCCTGTTGTT
146161	GCCATGGCAA	CGAAAAACTG	ACATGGCGCT	GGTGGGCGTG	TCTTATGGAG	AGGTGCTTTA
146221	ACCTCGTCCC	TGTTTCGGCT	AGTCTTCAAT	CTGGTCCGGA	GTAAAGTCCC	TGCCCTCCGGA
146281	GTTCACTCCT	GCTTCCTGCT	TCACAAC TGT	ATGACACTCT	AGAAAAGACA	GTAAC TATGG
146341	ACACAGTCAA	AAGATTAGTT	GATAGAAATT	GGGTGACAGG	AAGTGTGAA	AAGGCAGAAC
146401	ACAGGATTTT	TAGGGCAGTG	AAACTTCTGT	GATACTATAA	TGGTGAATAC	ATGACATTAT
146461	ACATTTGTCA	AAACCCATAG	AAAGCACAA	ACCAAGAATA	AACCCTAATG	TAAATTACAG
146521	ACTTTCGTTG	ATAATGACGT	GTCAATGTAA	GTTCAATTGT	AATAAATGTA	CTACTGTGGT
146581	GCTGGATGTC	TATGGTGGGG	GGACATTTTT	GCTTCAATAG	TTACAGTTGA	AGTAAATGTT
146641	TGTGTTTCCC	ACAATGCATA	TGTAGAAACT	CTCACATTCA	ATGTGATGGT	CTTTGGAGGT
146701	GGGCTCTTTG	GGTGATAGTT	AGGTTTAGTT	GAGATCCTAG	CAGATCGAGT	CTTCATGATG
146761	GGCATGATGG	GACTGGTCCC	TTATAAGAAA	AGACCAGAAA	GCTAGCTCTC	TCTTTGCCAT
146821	GTGAAGACAT	AGCAGGAAGG	TAGCCATCTG	CAAGCTAGGA	AAGGGCCTTC	ACAAAGAATC
146881	AACTCAGACC	TCAGAACAGT	GAGAGATAAA	TTGTCGTTGT	TTAAGTCACT	CAGGCTGTGG
146941	TATTTTGT	CAGCAGCCCA	ACCTAAGACT	GTTAATTGGA	TTAGAAATTT	CCTTTTGGGG
147001	ATGGTGTGTG	GCGGGCGGGG	GGCGGGGAGT	ACCTTTGT	AGCTTTTATA	TCAATGAGTT
147061	TGTAGGCTTT	TCTTTTTTGG	TCATTGACTA	GGACAGTTTA	AATAGTATGA	GTGTGAAGGA
147121	GATTGTTGGT	CATCTATTCG	ATGTCCTTC	TCTGTTTTTT	AATATGAGAA	CTCCTGATTT
147181	TCAGCCAAC	ACCCTGGA	AAAAGCTAAT	CTTTCTGACT	TCTTAAGTGT	GGCCATGTAC
147241	TAAATCTGG	CTAATGCAAG	GCAAGCCAAA	GGTTTTATGA	TAGGTTTTAG	GACACTAGAG
147301	TAAAAGAGAG	CTGTTGCACA	CATGCTCTC	ACCCTACTTT	TGTGTCCTTT	TTTCCATCCT
147361	ACAAC TTGGG	TTGTGAGTAT	GATGGCTGGA	ACTTTAGTGG	CTCTCTTGGA	TCCCAGGGGT
147421	AATTGAGGGG	TGGCTGGAAG	GAATCTGTGA	TTTTCTGGAG	TTTCCATACA	CAAACAAGAC
147481	CTGGATTTTC	TGGGCTTCCC	AGACTTCCAC	ATCTAGACTT	GCTTTAAATG	GGAGATAAAT
147541	AAACTTGTTT	CAGCCACTGT	CATTTTGGGC	TATTTTATAG	AACTTAATCT	AATCTTCAAG
147601	GGTACATGAA	TTGCTTTTCC	TTAAAAAAA	AATCAGCCAT	AAAATCATCT	TCTTTTTTCT
147661	TTTGTTCCCC	ACATTATTTA	GTTGGAGCTC	TGTAAC TTTT	TTTTTTTTTT	TTTTTGAGAC
147721	AAGGTCTTGC	TCTGTCACTT	AGGCTGGAAT	TCAGTGGCAT	GACCATGGCT	CACTGCAGCC
147781	TTGCCCTCCT	AGGCTCAAGC	AATCCTCGTC	TCAGCCTCCT	GAGTAGCTGA	AACTAAGGCA
147841	CATGCCACCA	TGCCCAGCTA	ATTTCTTTTC	TTTTAGAGAT	GGGAGCCTTG	CCCAGGCTAG
147901	TCTCAAAC	CTAGCCTCAA	GTGATCCTCC	CATCTCAGCC	TCCCAAAGTG	ACAGGATTAC
147961	AGGTGTGAGC	CACCATGCCT	GGCTGCTCTG	TAAGTGTCTG	AATTTTCA	TGTATTTATC
148021	AGTCTGTTTA	GATTTTCTTT	CCCTTCTTGG	GTCAGTTAGG	CCATTGGTTT	CTTTTAAAG
148081	GTTTTCAAAT	TTATTTGCAT	CTAATCTTTC	AAATTACTCT	CAAAATTATT	CCAGTATATA
148141	TTCTTTTGTT	CCTATTTTCT	TCTGTATTCT	TTATTAAAT	AGCTAATGAT	TTATCTAGCA
148201	GGACTTATAT	TCTTTCCATA	ACTTTCCCTGC	ACCCCAATTA	ATCTCCAATT	TTATATTTCT
148261	TCTGGCCTTC	CTTATAGTTT	CCACAGGTTT	ATTTTATTCA	TTTTTTAAAA	CTTTTATTTA
148321	ATTGTTTATT	TTATTATCAT	TCTTTCTTAT	TCAGCAATCT	AAGTGCTTAG	GGATATAGAA
148381	TTTCTCTTAA	GCAGCATATG	CTAGGCTTTA	ACAATGTTAG	GGAGGCCTCC	CCTTCTGGG
148441	GAAGACCACA	CTTACATTAA	CACAGGACTG	TGGGATGCCA	AGAGGTAGAG	AAGAGCTTAT
148501	GAATATCCAG	ATTACATCTT	CACTGATCCT	GCACAAAGGT	GGGGTTCCTC	GGTTACCCAC
148561	TGGGTCCAT	TACCCAAGTC	TGGGT CAGCA	TACCGAGACT	ACGGGTATAT	AGAACAAGTG
148621	CAACTGGCGA	TAATCCTTCT	GTTGGGGAGA	AAAATCTTTT	TTTTCTATT	ATCTTAGGTT
148681	CTCCATCTGT	GGCCC TATCA	AGTAGACTAA	CAAAAGACAG	ATTGACAAGA	CAGAAACAAA
148741	GCATGTGCAT	TGTACAAACA	CAGGGGAGTA	CTGAGATGAA	TACTCAAAAG	AGGATTTAGA
148801	ACTTGGGCTT	ATATAGCATT	TTAAGAAAAG	AATACATTTT	TTAAGTGACA	AGGAAGACGA
148861	AAAGGACTTT	GAGTTTCTAG	TGCAGTAAAT	TGTGGGAAGG	CAACTTTTTC	TTTCCCTTTT
148921	TTTTTTTTTT	TTTTTAAAAA	AAAAGACTTC	TCTGGTGCTA	TGTCCAGGCT	GATAAGAGTC
148981	TAAAGTCTCT	GGTGACTAAC	TTTTGTTCCT	CCCCGAGTAA	GAAGACACCT	TCACAATTTT

Figure 8 (Page 46 of 73)

62/162

149041	ATATCCTGCT	TTTAGGCAAA	TAGGGAGAGG	GCAGAGGTGT	TTGTTTGT	TTAATCTATT
149101	TTTTTCTCA	ATTGTCTTCA	ACTCAAAATA	CTTCTTATGC	CAAAGATGGC	ATATTCTGCT
149161	ACCCCTTCACT	TACTACTTAC	AACCCAGCCCT	CTATCATCAT	AATTAGAACT	TCTGACCCTG
149221	GGGAACATGG	GCAATAGTTT	GAACCTTTTT	ATATCTCCCT	TAGGCAGAGA	TGGAGGCCCA
149281	GCCATGCCCTC	TGACATCTAG	ACACAACTGT	TGCTTCATTT	CTCCTATTCT	CAGAGGTGAT
149341	GTTGTAGGAC	TTCAACAAAT	ATCAGTAAAC	ATTAATTTTT	TTTTTCCTTG	AGGCACAGCA
149401	TGATCTTGGC	TTACTGCAGC	TGCTGCAGGC	TCAAGCAATT	CTCCTGCCCT	GGCCTCACGA
149461	GTAGCTGGGT	TACAGGCCCC	TACCACCATG	CCCGGCTAAT	TTTTGTATTT	TTAGTAGAGA
149521	CAGGGTTTCA	CCATGTTGGC	CAGGCTGGTG	TTGAACTCCT	GACCTCAAGT	GATCCACCTG
149581	CCTCAGCCCTC	ACATAGTTCT	GGGATTACAG	CGGTGAGCCA	CCATGCCCTGG	CCATCAATTT
149641	TTATGTCAAC	TCTAAATTAT	AACATTTAGC	AATTTTGTGA	CTTTTTATGG	TCATCATTA
149701	TGTTGTTTAT	GTTTTAGTTG	TAGTCCCTGTC	ATTACTCACT	CGGGTATGGT	AATTTGGTCT
149761	TTTTCAAAAT	GAAGTTAAGG	TCTATTTGCT	CTTCTCTGAA	TCATAATAAG	AACTGCCAAC
149821	AGCCATTTTCA	GCAATAACTA	TTTACTGAGA	TTTTAAATA	TTTCAAGGTA	ATTGGTCTTA
149881	GCAGACTGGA	AAATACCAAA	TTCTTTTCCA	GAACCTGAATC	CCCCATCAAA	GTTCAATTTT
149941	ACTCATAATT	CCCTTTTTCAT	TTGAAGCATC	TCATTGTAAG	CCAGTCTTAA	CCCTTCTCTC
150001	ACACTTTGCT	TGGCTGTTTC	TCAGGTAGAA	CTCAGTAAGT	CTGGTAGCCT	CCAGGACTGC
150061	CGCTTAGATT	ATTAAACAAC	ATGTCAGTGG	TTGGAAGAGT	CAATGTTATT	TTGATTTTTTC
150121	TGTTTTGTTT	TGTTTTAAAT	GCAGTTGGCG	GATAATTGCA	GCTTTCTTTC	ATTCCCTACA
150181	TGAGTTCAA	TGGCAGCAA	CAAACTAGGA	GAACGCAGAC	CTTCTGACTT	GTGGGTACCC
150241	CTACTCATCA	CCTGAAGACC	CTTGGAATC	AAAGCCCTGA	CCCATTAAAG	ACGGATGGAG
150301	ACAGCAACAT	ACGATCATCA	CTATTATCTT	GCTTTGCCCC	AGTCCAGGTT	AACCATCTGT
150361	GGTATTTTTA	GTTGCTAAGT	CCATATATTC	AACATAAATC	AATTATATAT	CCACTAAAAT
150421	CTCAGCACTA	GTCTAACTAC	TAAGGAAATG	ACAGCGAAGA	AAACAGACCA	AACGTCTGCC
150481	CTTATGGGAT	TTATATTATT	TTCTCTGTGC	TGGTTAAACC	AAGGAGCTTC	TGCTCTTTTC
150541	CTTAGTCACC	TGGGGGAGGC	AGAAACAAAG	GAGAATATTG	ATAAACCTGG	AAATAGGGCC
150601	GGAGAGTATC	AGAGAAGGAA	GCCTTCGGGA	AAGTAAAGAT	GTGGCAGCCA	GTATTCCCGT
150661	TATAAAAGGA	TACAACCCG	GCCTCATAGT	CCAGAAAAAT	TCCCACAAGC	AGGGGCTGCT
150721	CATGCAGATG	AAGGGAAGTT	GGGGGAGAAG	TAAGTGCTAC	ATAGCCTTTC	TTTTTGACA
150781	GCCTGAGGGT	CCAGAATCCA	GACTGAGGCT	CTTGCTTCAT	GCCAGTGCCC	CTCTGCACAT
150841	TTTCCATACA	AACTCCTAAA	TCCCATCCGG	TTCTTCGCC	AACATCCACT	TCAAAGTAAC
150901	GTCTTCTCTGA	GGTGAAGCCT	TCACAACCCA	AGACACAGGG	GAAGGCAGTA	AATCTCCTGG
150961	AAGATGTGTC	CTGATTCTCC	TGGGTGTATC	CACGAGTCAC	TTGTCTCCGA	TCCTCAGAGA
151021	GAATTAGTTC	GTGATGAGCT	GTATCTGGAT	CCAGAGTCAC	ACTAACTGCA	AAACAAAACA
151081	AAACAAACAA	AAATAATTTT	GTTGCTGTGA	AGAACACAGG	TTATTTTATT	TTATTTTATT
151141	TTGAGATGGA	GTGTTGCTGT	CACCCAGGCT	GGAGTGCACT	GGCACTATCT	CAACTCACTG
151201	CAACCTCCAC	CTCCTGGATT	CAGGCAATTC	TCCTGCCCTCA	GCCTCCGGAG	TAAGTGCAGC
151261	TACAGGTGCG	CACCACCACA	AGTGGCTAAT	TTTTTTAAAT	TTTCTGTAGA	GATGGGGTTT
151321	CGCCATGTTG	GCCAGGCTGG	TCTCAAACCTC	CTGACCTGAA	GTGTTCCACC	CACCTCGGCC
151381	TCCCAAAGTG	CTGGATTACA	CAGGTGTGAG	CCACCATGCC	CAGCCACAAG	TTATTTTCAA
151441	TAAAACCAGC	CTGTGTTCAA	ACCCAACCTAT	TGTTTCTTAT	AAACTGGGTG	AGCTTAGGCA
151501	AATCATTTAA	CTTCTGAGC	CTCAGTTTGT	TAACATATAA	GTGGAAATTA	CCGTATTTGT
151561	TGCAGAGAAT	GGTGGGTAGG	ATTGAATAAG	CTTATGTTTG	CTTAATGCTT	GGTAAATTC
151621	CTGGTACATG	GTAACCACCT	AATAAGTGGT	AGTTGTTGGG	GTGATCAGGC	CCAACACCAG
151681	GCCGTGGGGG	CTACAAAGTC	CGGCGGGGTC	AAAGGAATGA	GAAAAGACAA	GTTAAGAGTG
151741	CATAAAGTGG	GTCCAGGGTG	CCAGCACTAG	ATTGGAGGCT	GCAAAGGCCC	TAAGCTCTGG
151801	GAGCCACAC	TATTTATTGG	TGATCAAACA	AAGAAGCAGG	TGGTGAGGAC	GTGAGGGTAA
151861	ACAGGTGAGG	GCATGAGGAC	ATGGGGGTAG	AAAGGTAGTG	GTGCATTAAG	CGTAGCTGTG
151921	ACAGTTTAGC	ATTTTCTTTG	ACACATGTAG	AATATACTCT	GCTGCTTGAG	ATAGTAGAGG
151981	ACACGTTTAT	GAGTGAAAAG	CAAGGAACCA	ACAAGTCTGT	GCACTTTCCA	GAGGCTATGA
152041	GGGGTTTTAT	GCCCTGAGCC	CTGGGTTCCTA	TCCAAGCCAC	AAGGGGTTTT	ATGCCCTAGG
152101	CTTAGATTTG	TGGTGCGGCA	GGGCAGCCTT	CCACCATTG	GCACAGAGCT	TGGTGTTCCA
152161	AAGGCCACGA	GGGGTTTTGG	ACCCTGGACC	CCGGACATCT	TCCAAGACTC	TTTTACATTA
152221	TGACAGACAA	GCCAGTCCTG	CTTCAGCTCT	TCTAACAACA	TGTAGTAATA	ATGATATCAT

Figure 8 (Page 47 of 73)

63/162

```

152281 CAACATCATC TTCGTCTTAA TTATTCAAGG ATGCCAAGGT ACAGAACTAA CCTGTTAATA
152341 TGGTTACCAT CCTGTCCAAA GTTCTTCTCC CATGCAGGAC TTCCAGGAAT CATGAGACAG
152401 TTGAGCAGAA AGATACCTTT TCCCTTCTCT ACTGAATAAC CACCAACATT GAGAATCAGA
152461 GAGGGAAAAT GACTCAGCTA ATGTCTTAGC TTGTTATTGG AAGACCCAGG TCTCATGACA
152521 CATGCCTAGT CCCATGACTT TTAATTGTAA GCTCTTCTCT TTCCCCTCAG ATAATGTTCC
152581 ATAAGCATTG GTATGAGATA ATAATACACT GAGGACCAAT ATACATGAAA AATATCAGAC
152641 TAGAATCAAA CAAGACAGAA AAAAGATCTG ATAACCTAAA GTGAGATACT GAACAGTATG
152701 CAGTTTTTAAA AATAAAAAAAT GGTAATAGGA TGTTCTAACA AGAGAGTTAA GAAACCACTG
152761 TGCTACTGAG TTAAATGTTG ATCAGTTGGT CTGTGACAAT TAAGGAATTC AAGTATTCAG
152821 AAACACTTCC TGTGCTGGAT GCTCTCTGTT TGTTCTTCCA AATAATCCCT CACTTTTCCC
152881 TGTCTTGCTC TGTGCCCAGG AAGGCTGACA TGGACAGATT AACCAGGCTT TCCGCCCTCT
152941 GGCTTGTTTC AGCCAATGGG AAGCACCAGA GGAGACCATA GGGCACAAAG AAGCAGCCTT
153001 GGGAGTATTC AGTACCCAG TCCACGCTA TGATTTGGAG GGTCTGCATT CCTCTGCCTC
153061 TGGGCACACT CTAGTATAGT TACAGCTCCC TACACCTGCC ACTTGAGGCC CAGAGGAGGT
153121 GATGGCTCTC TAACTGTTCC TAGTTCTGGG TGCTTCCTGT TCCTTGTTGA TTTCCTCACT
153181 CCTCACCTTT GTAAATACCC TCCTTTTTC AACTCTATTC AGTTAGCTTT TATCAGCCTG
153241 ACTCACAGAA GTTTGGGGTT TCAATTCATA TTACCTGAAT GACCCAGGAA AACCCTATGT
153301 GAGAAATTAA AATGTTTACG GGGTGGTAAT ACCACTTAAG AGAAAAAATA TCAATTGGAT
153361 TTTTAAAATT CCACCTATCT ATTGGTGTGA CACATCAACA AAAACATATA GAAAGATTGG
153421 AAGCTAAAAG ATAGATAATA TAGTCATATA CTGTTATAGT ATTATATCAA AAGATATTAA
153481 GTCAGAGCAT TATTAAGAAT GGAAGAAGGG CCAGGTGTGG TGGCTCATGC CTGTAATCCC
153541 AGCACTTTGG GAGGCCAAGG CAGGCGGATC ACTTGAAGCC AGGAGTTCAA GACCAGCCTG
153601 CCCAACATGG CAAAACCCTG GCTCTACCAA AAATACAACA ATTAGCTGGG CATTGTGGCA
153661 CATGCCTGTA ATCCAGCTA CTTGGGAGGC TGAAGCACA GAATCACTTG AACCGGGGAG
153721 GCAGAGGTTG CAGTGAGCTG AGATTTTCGCC ACTACACTAC AGCCTGGGTG ACAGAGAGAG
153781 ATTCTGTCTC AAAAAAAAAA AAAAAGAAAG AATGAAAGGA GTCACCTAAA AAAGATAACA
153841 CAATTTTAAA CATAAATGTA CTACATTATT AGTGAATTCA TGTTTAGAAT TGTGTTAATA
153901 TACAAAGCAA AAATTGTAGA ATTATAGGAG AAATGGACAA ATCTACAATC ATCATGGGAT
153961 GTTTTAAACAT TCTTCTTTCC ATAATTGATA GATCAGGCAG ACCAAAAGAA AGAAATAAGG
154021 GAAGATACGG AAGGTCTGAA CAATCTAAGA AGCGCAATCT CATAGTCAAT ACATAAAGCT
154081 CAGCAATTGT TTAATAATAG TAAGCAGAGA ATATGCAGTT TTCTCAGGTA TAGATGGAAC
154141 ATGCACTAAC TGAGTAAATA CTAGGCAGAA AACAGTCTGA ACAAGTTTCA ATAAATCTGT
154201 ATTACACAGA TCATTTTCTC TAGCCTCAAT ATAAGATTAT AAACCAATAA TAAAAAGATG
154261 ACTAAAAGAA TTCTAAATAT TAGGAAATGT AAACCTACTA TAAGTCATTA GAAGATGTAT
154321 AGAATGGAAC AATAATAAAA AGTTATTTAT AAAAATATAC AATGAAGCTA AAGCAGAATT
154381 TTAAGGAAAA TTTGTAGGCT TTAAATGCTT ATCTTAGAAA AATTAAAAAG CTGAACATTA
154441 ATGAGCCAAG CATCTAATTT AAATTTTAAA AAGAACATAG AAAGCCAAAT ATAATTTTTT
154501 AAAAAGAAAA AATAGATATT AAACAATATA ACAGTGAAGT TAAAGAAAAC AAGAATGCAA
154561 TAAAGAGGAA AAACAAACAA AAAAAAAGGT AGCTTCTTTT AAAAGAAATT TAATAAAATA
154621 GACATACCTC CAATGAGATT TATCAAAGTA AGACAGAAGG CACAAATGGA ATGAATACAG
154681 AAACCTTTTA AATATTACAG AACTTTATAA TAAATCTTAT GCTACTAATA AAATTGAAAG
154741 TACTGATAAA ATTATTACTT CCTAGAAAAA ATATTTCTGA GTAAAACTCA CTCAAAAAAC
154801 AAATAAAGCA TGGGCAGACC TAACATTAAA GAAATGAAAT CACTACTTTA AATTTTACCG
154861 ACAGATAATA AAACGTGCAT CTTTATCAAG CAAAATGGA ACTTGTCAGT TTTATAGGAA
154921 ATTTAGAAGT CAAGGCATGA GTAATGCCAA TCTCATACCA AATCCTACAA AGAATAGAAA
154981 ATTATGGCTC CCGCTTATAG ACATAGATAT AGAACTCCTG CACAAAATAA TATAAATAAC
155041 AAACCAAATT TTATATTGTC AACTATACAT ATTATATGTG TATGTATTAT ATATGTTAAC
155101 ATATACATAT ATAATATGTA TAGCATATGT TCTACATATT ATATATGTAT AGTGTATGTA
155161 TTTTACAATA TATAAATGAA AACCCTATCT TTAATATATT CATCTAGATT GTCATATATG
155221 ACATATATAA TACATTACAT CAAAAATGTG TACAATAATC AGGCCAGGCA CAGTGACTCA
155281 TGCCTGTAAT CCCAGCACGT TGGGAGGCTG AGGCGGGTCA ATCACTTGAG TCCAAGAGTT
155341 TGAGACCAGC CTGGTCAATA TGGCCAAATT CCATCTCTAC AAAAAATATG AAAAATTATC
155401 CAGGCATTGT GGTGCACACC AATAGTCCCA GCTACTCGGG AAGCTGAGGT GAGAGGATCA
155461 CTTGAGCCTG GGAGGTGGAG ATTGCAGTGA GTCGAGATTG CGCCAGTGCA CTCCAGCCTG

```

Figure 8 (Page 48 of 73)

64/162

155521	GGTGGCAAAG	GGAGACCCCTG	TCTCAAAAAA	AAATTAAAAA	ATTAGCCAGG	TATGGTGGCC
155581	TGTTCCCTGTA	GTCCCAGCAA	CTGGGGAGGC	TGAGGTGAGA	AGATCACTTT	AGCTCAGGTG
155641	GTGGAGCCAT	GATCGCACCA	CTGTACCAC	CGGCTTGGGC	AACAGAGTGA	GAGCCTGTCT
155701	CGAAAAACA	AATATATACA	CACAGTAATC	AATATATATA	TTATATGTAC	CAATCAATGC
155761	TTCACTTTTA	TATATAATAT	AGATTACATC	TTATTAGATA	TATAGTATTC	CTTCTCCATA
155821	GATAGATAGA	TACAGATATA	GACATAGTAT	CCTCTATCCA	TATTAGAGAG	AGGATACTAT
155881	ATATATCTAT	AGCATATAGA	GATGCTGTCT	CAAAAAAATT	TAAACATCAG	CCAGATGTGG
155941	TGGCCCATGC	CTGTAGTCCC	AGCTACTGGG	GAGGCTGAAA	TGAGAGGATT	GCCATTGATC
156001	CTCTCATTTG	TTGAGCCATA	ATCGCACTAC	TGCACCAC	AGCCTGGGAG	ACAGAGGGAG
156061	ACCTGAGGTG	GAAGGATATA	GATATAGATA	TATAAATAAA	TATGTATAGA	GAGAATATAA
156121	TATATGTGTG	TATGTGTATA	TATATATATT	ATGAAGACAC	TGGGAGAGAA	TACTATATAT
156181	ATATGTGTGT	TGTATATAT	ATATTATGAA	GACACTGGTG	GGATGGTTTC	ATTACCAATT
156241	GGACCAAGAG	TCCAGGTATG	GAGCCAACAT	GCAATGTTGT	TGTTGACTGA	GCTGGCAGAG
156301	CACTGGTCAT	AGTTACGGGA	AAAGAAGGTC	TCCAATGAGA	CATACTTAAC	AAAATATATG
156361	AACTTGCCAT	ATACGTGGAG	AGTTCCTGGTG	TGTATATAGC	CTTCTCTCAC	CAACAGGGAG
156421	ATTGTCTTCA	TCATCATTAT	AATGCTATCA	GAGCAAAGAT	GACAGCTAAA	TTTTTTTGTG
156481	CCTTTCTTCT	TCTTTCTCTT	CCTTCCCTCT	CCCCACCTCT	TTCTCTTCTT	CCTCCTCCTT
156541	CATCTCTCTT	CTTTTTTTTT	TTGAGATGGA	GTCTTACTCT	GTGCTCAAG	CTGGAGTGCA
156601	GTGGCACAAT	CTCAGCTCAC	TGCAACCTCT	GCCTTCTGGG	TTCAAGCAAT	TCTGCCTAAG
156661	CCTCCAGAGT	AGCTAGGACT	GCAAGTGCAC	ACCACCACAC	CTGGCTAATT	TTTGTATTTT
156721	TAGTAGAGAT	AGGGTTTCAC	AATGCTGGCC	AGGCTGGTCT	CAAACCTCTG	CCCTCAAGTG
156781	ATCCTCCTGC	CTCGGCCTCC	CAATGTGCTG	GGATTACAGG	CGTAAGCCAC	TGTACCCGGC
156841	CTCCTCCTTT	AATAGACAGG	GTCTAGCTCT	GTGCCCAGG	CTGGGTACAG	TGGCGTGATC
156901	ATAGCTTACT	GCAGCCTCGA	ACTCCTGGGC	TCAGGAGATC	CTCCTGCCCT	AGTCTCCCCA
156961	GTAGCTGGAA	CTACAGGCAT	AGCACACGGG	GCTAATAAAA	TTAATTAGGT	GATAAAATTC
157021	ACTGCCCACT	GATGACTAAG	CTCTTTGGAC	ATAAAAGACA	CAGACCTTGA	AGGAAAATGT
157081	GTCTACTTAA	TTTTGAAACC	CTATTTATCA	AAAAACAGGA	TGAAAATGCA	AAATGCCATC
157141	CACATGCCAG	AAGATATCAG	CTATAATAAG	TTCCCATAAA	TCAATAAGGA	AAAGAACCCA
157201	ATAAAAATTA	TTAAACCACA	GTAAATCATG	GGTAAATCAC	AGAGGCCTGA	AGGGCTAATG
157261	GACATACAAA	AAGAATCTCA	ATCTCACTAG	TGAAATCAGA	AAAGCACAAA	TTAAGTACAC
157321	AATTAGGTAC	CATTTTAAAT	CTGTAAGACT	GTCAAAATCA	TAAATTATAT	AAGTAAAGAC
157381	TCAGGGAGTT	TTGGAGGAGT	GAGAGCTCTT	ATATTGCTTG	TGGGGTAGAA	TTGGAACAAT
157441	TTCAAGATCT	GTAGTATCTG	GTAAATTTAT	GATATGCATC	CCTCACACCA	GCATGTCACT
157501	CCAAGGTATC	TCCCTGGAGG	GAACATTTAC	GGGACACAAG	GAAGCATGGA	TAAGAATGTT
157561	CACAGTAGTA	TTGTCTGCAA	CAGCAACAAC	AACAAAAAAA	CCCAACTACA	CACAACCTCA
157621	ATGCCCAGTC	CACAAGGCAA	TGGATTAAAT	AAACTTCAGG	CCGGAGATGG	TGGTTTCATGC
157681	CTGTAATCCC	AACACTTTAG	AAGGCCGAGG	CGAGAGGACT	GCTTGAGCCC	AGGAGTTCAA
157741	GACCAGCCTG	AACAAAATAA	AGAGATAGTG	TTTCTACAAA	AAATTTTTTAA	AAAATTAGCC
157801	AGACGTGGCA	GTGCTTGCCCT	GTGGTCCCAG	CTACTGGGGA	AGCTGACGTG	GGAGGATTGC
157861	TTAAGCCCAG	GAATTTAAGG	CTGCAGGGAG	CCATGATGGG	GCCATTGCAC	TCCAGCCTGG
157921	GTGACAGAGT	GAGACCCTGT	CTAAAAGAGA	TAAGTAAATA	ACAACTTTGC	ATTTTCTGCC
157981	ACATTGCAAA	ATGGTGAGAG	AGTGGTTTCT	AGACTCTAGA	CTCTTTCTAT	GACTACCTTC
158041	TAGTTATGAG	ATCCTACAAC	ACTCACCTAA	CCTCTCTGTG	TCATATTTCC	TCCTCTATAA
158101	AGCAAAAATG	CCCCATATAG	AGAGGACTGT	GATATAAAAC	AAGAACCAAG	AAAAGTAAAG
158161	CTTTTCTAAT	CTGTCACAGA	CTAAAGAGTG	CTCAGTATAT	GTGAGTCATT	ATTCTCTGGT
158221	CTGGTAGGAG	TGTATGTTAC	AACTTTGAGT	CAAGTAATAT	GGTACCATAT	ATTAAGATTA
158281	ACAACAACCT	CGGCAATCCC	AGTTTGGGGT	ATGTTCCCAA	AAGAAATGAA	AGCACCAGGA
158341	TATAAGGATG	CATGGACTAG	AAAGTTATTG	TAGCAACATT	GTAATAACTA	AGTTCTAAAA
158401	ACAGCCTGAA	GCTCCATCAG	TAGGGATATG	GTTACATATA	TTTATTATAT	TCTTATGGAA
158461	TATTAGACAT	AAAAAGTAAC	GAGTAACATA	GAAGAGACAG	TGTATATATG	TTACGTTTGT
158521	ACAAACTTAG	GGAAAGATAT	AGATCACCCCT	ACCTAGAGAA	GTCAGATTGG	AGACGGGTGG
158581	GAAAAACCTT	GAACCTTCTC	CTTATATCCT	TTATATTGTT	TGACTGATTA	AAATGTATTT
158641	GTTGCATCTG	CTTGAAGGCA	ATGTAAAATA	AAATAAACAT	ACATTTAAAA	ATAAAAATAA
158701	AATTTATTCC	TATCACTTTT	GTAATAAAGC	TGGGCACAGT	GACTAACACT	TGTAATCCTA

Figure 8 (Page 49 of 73)

65/162

```

158761 GCACTTTGGG AGGCAGAGAC AGGCAGATCA CCTGAGGTCA GGGGTTTGAG ACCAGCCTGG
158821 CCAACATTGT GAAACCCCAT CTCTACTAAA AATACAAAAA TCAGCCAGGC ATAGTGGTGC
158881 GTACCTGTAA TCCCACGCTA CCCGGGAGGC TGAGGCGCTG GAACCCAGGA GGCAGAGGCT
158941 GCAGTGAGCT GAGATTGCGG CACTGCAAGC CAGCCTGGGT AACAGCGAGA CTCCATCTCA
159001 AAAAAAATT TGAAAAAGA AAAATTTTAA TAAACAGTGT TTAAGAGGGG AGAAATATTT
159061 AGTTAAAAGA TAAGCCCAT TTAAGAAATAG TTTCACTTGA CCCGGAAGGC GGAGCTTGCA
159121 GTGAGCCGAG ATCGCACCAC TGCCTCCAG CCTGGGCGAC AGAGCGAGAC TCTGTCTCAA
159181 AAAAAAAAAA AAAGAAAGAA AGAAAGAAAG AAATAGTTTC ACTTGAACCA TATTATGATT
159241 CCTTCTGTAA AAGATGAGAG TAGGCAAATT GACTCAGTGA AATCCAGCA AAACCTTACAC
159301 AAAGTCTTGT TCTTCCTTCC TGTCATCTGT ATAGGATGAA ATACAGAGTG CTTTTGGGTT
159361 TTGTTGTTGT CAAATGGGCG TTTGCCATT CAAATAGTTT AGAAGTTATA AAGGCAAAAA
159421 ATCCCTGGAA CAAATGGGCG TTTGCCATT CAAATAGTTT AGAAGTTATA AAGGCAAAAA
159481 AATGCATATA CTCTAAAGTT CAACCCCATC ATGGCCTAAG GCAGAGCCCT GTAATCAAA
159541 TCATCAATAT ATCTGCAGCA AAACATTTAT TCAAATTAAG TGGGATAAAT AAAGACTTTT
159601 AAATAGTCTC ATCTCAGTGC CGTTCAGGGT TGGCCACTGT GGAAGACAGA CTCAAGGGTG
159661 GCCTTCTATG ATTCTGCGCT CTGGTGTTC ACACCCCTCGT AAAATTCCCTT GTCTTTGAGT
159721 GTGAGCAGGG CTTATGAATT GCTTCTGACC AATAGGATAT GGCAAAGATG ATGGGATATA
159781 ATTTCTATGA TTACGTTTCA TTATGTAAAG CTCCATCTTG CTGGCAGATT TTCTCTAAAG
159841 AGTCTGTCTC CTGAGCTCTC TCTGAAGAAA TAACTGGCCA TGTTAGAAGC CCATGTGCAA
159901 AGAGCTGAGG GGTGGCCTGT AGAAGCTGTG GGCAACCTCC AGCCAACAGC CAGAAATAAC
159961 CAGGGCCAAA GTCCTGCAAC CATCAGGAAA GAAATTCTGC CTGCTACCTC AGTGAGCTTG
160021 GAAGTGGAAT CTTCCTTAGC CTAGCCTCCA GATAAGAACA CAGCCTGACC AACACCTTAA
160081 CTGCAGCCTT ATCAGACCCT AAGCAGCAGG CCCAACTAAG CTGTGCCAGC ATTCTGAAC
160141 CACAAAAATT GAGATAACAT ATCAGTGTTG TATTAAGGTT CTAAATTATG GTAATTTGTT
160201 TGTACTAATA GATAACTAAT ATAACCACCA AATCATTTCA GGTTAGGCCA GATTTTTGTA
160261 GCCAAATGAA TCATGATAAA ACTTTCCATT TTCAGGGGTT TTTTGTATTT TGTACTTACG
160321 GATACAAATT TGTGAAAGTA TAGTCAGCAC TGATTTAAAA AATCAAGGGA GCAGGAAACT
160381 CAGTAAATGG TTCTAACATT TTGGAATCTG TAAATTGGTT GTAACATTTG TCATCTGTGT
160441 TATCTAAGTC AAGTTCCTAA AATATGTGAA TGATAGGTTA TCATACTCAC CTACTTTTCT
160501 TGCATTGCTC TAAGAGTTGG CTGAGCTATT GATAATAAAC ACTATGATCA GATCTAATAC
160561 CATGATGTGC TATTATGATC ATGTGTCAGT CACAGGGCTA AGCACTTTGT ACATGTTGAT
160621 GCATTTAATT TTGATGATAA CTCAATGAAG TAGGAGCTGT TAATATTTTC ATTTTTCAGA
160681 GGGGGAACC AAGTCACTTG GAGTAACATG GCTAATAAGT GAAAGAATAA GAATTTGAAA
160741 GGTTTGCACA GATAACCAGA ATGCAATGCT CATCACATTC ACTGAGCAGT GAATCATACT
160801 AACTAGAGAA AGTATGAAAG CTCTACTGAA ATTAACATAA CAACCTCTCT GGCTGTGAGC
160861 CTGCCAAGGG ACAGGTGGTA AACTTGGTTA CTGCATAAGG CCCCTTCTAT CCACAGTATT
160921 CAGGAATTCT TTAGTGAACA TACCTTGATG ACTCCTTAAC ATTTTCTTCA CATCGAAGTA
160981 AAGCTTGGAA ACATTGCACA TAGTATGAAG TTCCAAGGAG ACAGCCTCTG ATGTTTCCAG
161041 CTTACAGACC CAACTCCTAG AATAAGCAGA GGCGAGAGAT TTCTTCAGAG GTGCATTCCA
161101 TTCATTTCTA TATACGCACA CCCCTCCCCT CCTGCATTCA AACAGGACTT ACCTGCTCAA
161161 AGTGTCATTC ACATTCCTATA AAGAAACAAA AAGAAAAGGT GAGCATGGGA ACATCGGTAT
161221 TTCATGGGGC TTGTATGCA GGGCTATTCT TCTTTGCTTT ACCCGAAGAA GTAAAGAGAG
161281 TTACCCTAGT CTTAGTCTTA GATATTGATG GATACTCAA CAAAGTAATT CCCACCAGTC
161341 TTAGGTATTG ATGGATACCC AGATGGAATA ATTCTACCA GCTTCTGGGA GATTCAGCAT
161401 GGCAGGATGT TTATCAACAT TTGCATCTAT TCTCATCCTT GCTGAAGTCT GAGGGCCAGG
161461 AGCTTTGTCC ATGCTCCCTC TGTAAGGACT AGCTTTTGGT GATCGGATTT CTTTACAGT
161521 GAGCCAGAT TAGAGAACAC TTATCATAAA GGTCCCTAGT GGTGAATCTG TGCACAGCCC
161581 TGAGACTGGG CCACTGCCAC TAAGATGGTG GTAGCAGGTA TCACACAGTG GTAAAGCAAT
161641 CATGCTATAC ACTCAGCCTT ACAGTATAGT CACCAATCCT GTTAGTTAGA ACCAGAATTA
161701 ATGGCTCCAG ATGTTTATCT TCCTACAGAT AAAGCTGTAG ATTGTACCAT AACAGCTCTG
161761 GAGCAAGGGT TCTACAAGCA AATCAGGGAA AAGGTTATCA CTCATTTTGG CTGCCCCACT
161821 TCATCACCCA TCAGTCACCT AGTGGAGTAT TTCAGGAGAG AGTCAACAAC CAGGGTTCTC
161881 TGCACATGGG CCAAGGAGGC AAACAGTGGT AAATGTTATC CCGTGGTTTC ATTTGGCCAA
161941 GCTGTGTTCC CTCAGAAGTT TATTTTCTTA ATTGACATAA AGGTACCCTA TAAATTAGTG

```

Figure 8 (Page 50 of 73)

66/162

```

162001 AAGGCCAGCC TGATGGCACT GATGTACATC TAAAAGAAAC ATTACTTTAT CTTCCCATGC
162061 TTCCTTACCA TTCTCCTTTA ATAGCACTAT AACATACCTT TTTTCCCTAC TCCAAGTACA
162121 CAGCCTCACC TGCAGCAATT TCTGGGCTGA GCCCTGACAT TTTTCTCCA GTTCCAGGAT
162181 GTGGCTCTTG AGTTCATTGC TCTTCAGCCC CAGACCAGCC TCATAGTCCC TCAGTCTACT
162241 CAGAGTCTGT TGTTCTTCTT TCTCCAGCCT CCAGAGATAA GACTTCTCTT CCTCATGTAG
162301 GAAACACTGG AGATTCTTAA AGTCAGACCG GATTTTTTGT CTCTGAATCT GTACCTTCTC
162361 CTGGAGTCAA GAAAGTATGG TCAAAAGGTG GAAGTAAACC AAATGTCCAT CTATGGATGA
162421 ATGGATAAAC AAGAATGAAA GTCTGACACA CGCTACTACA TGACAAGCCT TGAAGACATT
162481 CAAGCAAAAT AAGCCAGAAA CAAAAGGGCA AATATTGTAA GACTTTGCTT ATACAAGGCA
162541 TCTGGAGTAG TTAAGTTCAT AGAGACAGAA AGTAAAATAG TGGTTACAAG GTGTTGGCAA
162601 GACCAGAAA TGGACAGTTA TTGTTTAAATG GGTAGTGAGT TTCAGTTTAG AAGATGAAAG
162661 ATGAAACTGA GTTGCAAGTTT GGAGATGGGA ATGGTGATGG TTGCACAACA ATGTAACAAT
162721 GTAAAAGCAC TTAATTCTAC TGAATATAT ACTTAAAAGT GGTAAATGTC TTAAGTGTAA
162781 TATATATTTT CACACAAACA CACACACACA CACAATCAGC CACTGGGACA TTATTTTCTC
162841 ATGAGTCACT GAAGCTGGAA GAATGTCCCC AGTTTCCTGC TGCAGAGTCA TGTGTGGGAG
162901 GCAGGCACTC AGATGTGGAA GAGGTTGCCT CAGATTCCTT ATAGTCACCC AATTAATTTT
162961 CTTGTTCTTC AGCCAAGACA CAGGAGAAAG CTGGGTTAGG AGTGCTAGAT AATTTAATTG
163021 TGAAACTAGG GCCAAGTTCA AACACTTTAT CAGTTACAAG GATAAAAAGA GTTTTTTACT
163081 TATGATTTAA GAAGTTAGAT TTCTGAGTTG GAGCGATTTT CTTGAAGTAA AAGCTTATAA
163141 TGAACATCAC CCAGACTGGA TTTTAAAGACA ACCAGGCTGG TAAGAGGGTC CATAATTCTT
163201 GGCAGGGGGA GCTTTGAGTG TGACAGGCAT TTATTATGGT TAACTGAGAA ATACTGTTCT
163261 ACTACCCTAG GGTCATCTTA AGCATTCTTA TGTGTAAGAC TGACAGAAAT CAAGTGAAAC
163321 TCTCATCTGA GGAGATGTAA AGTTGCAATT TCCATTAGTG CTGTCTAAAT TAATGCAGTG
163381 GGAGTGTGTA TTCAGGGCAA TTTGAATCTA TGTTCTTGGA TTGCAGTCTT CAAACTTGGC
163441 CCAAATAAAC TCTCTACTTA TCTTAAAAAA ATAAAAATTA AAAAATAAAA ATAAATTCAT
163501 ACAGTGTTTT GATGACTATG ATATAGAAGA AGGGTCTTTG ACTTAGGATG AGGTGGAATT
163561 TTTGTGTAGG AGACAGGTGC AGCTTTAACT CTTGTATAGA CGGGTTTTCA TATATGTTAG
163621 TTACAATCAA GGTCTTCCCC ATTGCCCAAG ATCCTAGAAA TGGGGGAAGT AAGAGTGTAC
163681 TCAGGAGCTC AAGAGCAACA TCCACAAACA AAGATCAGGG TAGAGGTTAG AGAGGACTCC
163741 TGAAAGAGAG AAAATTGGTA ATCAGCTTGT GGGATTTTAC TGCAAGCTAG TGAATTATAT
163801 AAATATAAAG ATTGGTGCAA AAGTAATTGT GGTTTTTGCC TTTACTTTAA TGGCAAAGAC
163861 CGCAATTACT TTTGCACAAA CCTAAATATT TCCATAAAAG AATGTGGCTC TGATAATGTG
163921 GAGGTTAGTC AGCCACGGAA ATAATCTGAA AGTTTGTAGT TGCAAGTGTG TAGGTTGTTG
163981 CATTACTTGT GATGTACTTA TAAATCAAGT ATAGGCCGGG TGCAGTGGCT CACGCCTGTA
164041 ATCCCAGCAC TTTGGGAGGC TGAGGTGGGT GAATCACGAG GTCAGGAGAT CAAGACCATC
164101 CTGGCCAACA TGGTGAAACC CCGTCTCTAC TAAAATACAA AAAATTAGCC AGGCATGGTA
164161 GCACATGCCT GTAATCCAG CTAATCAAGA GGCTGAGGCA GGGGAATTGC TTGAACCCGG
164221 GAGGTGGACA TTGCAGTGAG CTGAGATCGC ACCACTACAC TCCAGCAAGA CTCCATCTCA
164281 AAAAATAGTA ATAATTTAAA AATAAATAAA TAAATAAAGT ATATTTCTTT CATCAGCTTC
164341 ATGAGCTAGA GTAGTATGAA TTTCAATCTG GAGTGATCCT GTTTTCTAAG TGTTCAAAA
164401 GCTTGGTTTC TGTACCTGTA AAGTTGAGAG CCAGATGCTC CACTGTGGTA AAAGTGCCAG
164461 GGTAATGAGT TGAGGCCTGC AAACCAGGTT TATTTTGACG TATTTAAAGT TTGAGACCCA
164521 CTCGATGCTT TTTCTAGGTA AATAGTCATA CTAATTCTGC TTCTTCTGAC TGAAGTATCA
164581 GGAATCCCAG CCAACTACAG TTTAAAGATG GAAAGATTGG TGCTAAATAC TCATGGATGT
164641 AAACCTGGAA CCAGGGGCAT AAGTACAAAT AATGGTTTCT TCCTTGGGTT TCATTTTTTC
164701 AATCTGGTTT AGTGAGAATA AATCCTCATT GTGCTTTTCC TCAATCATCC CCTATGCCTA
164761 AGCTCTAGAA TGGAAAATAG CTTGAGATCA ATGAAGTCAG ATTCTTACTT TCCATTTAGT
164821 TATTCGCATT GCTGTGGACA GCTTCTGCTC CGTACATCTG TCTTCAAGTT GCTTCAGTTT
164881 TGTCACAGCT TTCTGGAGCT TTTCTGAAG GAAAAATTTG ATAAGTGAAG CCTATTCAAT
164941 TTGACTCTTC ATTAGGGACC TAGGGGGAAT CCAATCTTC TAAGATATAT TTGAATAATA
165001 GTGAATATTT ATAGAGTCCT CATTGTTTTT TGCTAGAGAG CATGCTAAAG GCTATATGTG
165061 CAGGAACATA CTGATCCCCT TGGCAACCCT GAATAGTTGG TAGGATTTTA AACTTCATTT
165121 CTGTGCTGTA GAAAATGAGA CTAAGAAAGG GGTAATAATA CTTGCCCCAA GGGCTATGAC
165181 TGCCAGGTGG TGGAGCAACA ATTGCAATCT CATCTGCTGA CCCAGAGCCT GAGCTATGTC

```

Figure 8 (Page 51 of 73)

67/162

165241 CACCACTAGA GTCCTGCCAG GAAAAAGTTG GATATAGAAC AAGGTAATCA TCATCTAAAA
165301 GATTTTGTAA AACCAACATGC TGAACCAAGC AAAACCAATA CCAGTGTGTTG GCACACATGA
165361 AATTTTGTGT CTTATGAGTC AGGAAAAATC AGGATGCCAG CTGGTTATTA GAAACAGTTC
165421 ATGGAAGAGG GGAATTCTGG TATCTTTTGA ACAATGGTAT CATGAATCCA ATTTAAAAATG
165481 ATTTAGTATT CATGTCAAGC TTTTAGCTTA TTCTTCAAAA CAGTTTCTCA TATTTCTATT
165541 GAAAGTGATT TGAAGCTGAC CCAAATTGCT AATTGTAGTC AATGCTGAAA GAATTGTCTC
165601 CTGTCCTCTG TAAACCCAAC AAGTATACTC ATTCATTCTC GAGTGTCTC AGGAAAAGGT
165661 TCTATGTAAC TGTTTTAGCA AAAGATGACA TTGTCCTTAC TATATGCCAA GTGCTATTCT
165721 ATGCATTCTA TATTTTAATG TCCTCAAAGC TTATAACCAC CTCCTGTGTA TGTGTTTTAG
165781 GGAGGGAGGA CACTGCTATT ATCCCCATTT ACAGATGGAG AAACCAAGGT GTGAAGACAT
165841 TAAGTAACGT GCCCAAAATT GCCCATCTAG TAAGTGACAA AACTCAATTT CAACATAAGC
165901 TGGTTCCCTT TCTTACTACT TGGTGAAAA GTAATTCAAA TGGGAATATG ATCATCGCAG
165961 TTATTAGCTG TCCCATGGAG TTTAAGGAAG AGCTGCCATG AGCTGAGTGG TGGTCATGAT
166021 TGACATGTCC TTAGAAGGAC TTAGAGCCTT CATACAAGAC CACCTCTGCC TCATGGAGGA
166081 CAGAATAAGG AGCCTGACAC TGGAGACAAC ATTTTCTCTA AATTTAGGCA GGACAGAGAA
166141 GGAAAAAGGA CATCAGGACT ATGCCCATTC CTCCATGCTG CCAACAGCAA AGTCCCACCT
166201 TCCTTAATAT GCTTTCTGGC AAGAAATCTG GATGGTACAC AAAACCTCTC CCTCTGTTCT
166261 ACCTTCCACA ACCAAGCATT TCCAAATCTT TGA CTCTTCT TCCCTGAATCG TGCTTAAAAT
166321 CTGCCCTCTC CTCCCTTTCT TATACGGATA GTTTGAATTT TACTCCTTGA TATTCCCTTT
166381 ATCATAGACA TGCCACAGTA GCTGGGCACA GTGGTTCATG CCTCTAATCC CAGCATTTTG
166441 GGAGGCTGAG ATGGGAGGGA GACCAGGGGT TTGAGGCCAG TATAAGCAAG AAAGGCAGAC
166501 CATGTCTCTA CAAAAAATAA AAAAATTATC CAGGTATGGT GGGGCATCCC TGTAAGTCCTA
166561 GCTACTTGGG AGGCTGAGGT GGGAGGATTG CTTGAGCCCC AGAAGGTTGA GGCTGCAGTG
166621 AGCCGAGATT GCACCATTGT ACTCCAACCT GGGATACAGA GCAAGACCTT ACCTCAGGAA
166681 AAAAAAAAAA AAAAAAAAAA AAAAGTAGAG GTACCAGAGT GATATTTTCA ATGTCACTGA
166741 CCCTTCATTC CCCAAATGAA AATCCCCCAA TAGGTGTTCA ATTTTACGT GTCCCTCAGG
166801 AGTTACTTCT AAGATGAACC ACTCTCTACC CTAAATGTCC CTCCCCACCA CCAAAACCAG
166861 GGACCTCCAG GCAGACATTT TTGATGGTTT GTTTTCTTTA CTAGACTGTA GATACCTAAA
166921 AGGTGATGGG TCTTTCTTCC CTGTTTTTCA GGCCTACTGC ATGGCTTTAC ATATTGTGGT
166981 TTTTCAAATG ATATTCATGG TGTGAAACAA GAAAAAATGC GGGTGTGTTG TTTGAGAACA
167041 ACCTGTTCTA AAGCAAAAAG AAATTCATCA TAACACAAAT GGATAGAGAT AAGAGTCCAA
167101 CCATCCCATT GAAGGTCAGG ATGGACAGTC TAGATAATTG AGCAAGAAAT CATCATAAAC
167161 TATTTTTTCA AAGAATGACA TGATGAAAGC TGTATTTCCA AGTCATAATG TTAGGTTTCA
167221 AGTTAAATCA TCTCAGCTCC TGGGGAGCAG GATAAGACTT GGTACTTACC AAAGCTCCCG
167281 GGCCACACA CTCACCTTGT AGCCCTGGCA TACGTCTTCA ACAAGAGCTG TGGTGTGCCC
167341 TTTGTGCTGT GGTGCCCCGT CACAGCGCCA GCAGATGAGC TGCCCCCTCGT CTTGCGAGAA
167401 CAGGTGGAAC TGCTCTCCGT GTTCTCACA TGACATTTCT TGATCCGTCT CTTTGAGGGC
167461 TTCAATGAGG CTTCCCAGCT GCTTGTTGGG TCGGAGGCTA TCCATATGAA ATGGAGCCCG
167521 AACTGGGGA CAGCAGAATG TCTCCTGCCT CAGTTGCTTT TGGCTTGGGT TTTTAAAGAA
167581 GTCTGTTATA CACAAGTGGC AGTAGCTGTG TCCACAGTTG ATGCTTACTG GGTTCGTCAT
167641 CAGGCTCAGG CAGATGGAGC AGGTGGCTTC CTCCATCATC TTCTTGGTGC TGGTGGTTGA
167701 GGCCATAGCT TTTATTGAAA AGCTCCAATA TTGGCTCTAG AGATGGAGAT GAAGCAGCCA
167761 GAATTTTCCA CCGTGATGAA AATACACCTC ACCTGCACCT CTATGTGATG AGCTGGCTGC
167821 AACTGACTTC CATAGGTCTT GAAGGTTTTT CTTCCAACCC CTATTATCTC ATTTTGTATT
167881 GAAGAAAAGA GGACCTAAAA GGAAGAAGTT GAGGCTGAGG TTGTTTGGGC CACGTTTGAG
167941 AACTGCAACC CAAGTGCAAG GTTTCAAGTT GCCCTCATTA GCAAGCAGTT ACAAGTGGTT
168001 GTTTAGAGGA AAAAAAGCAG TTTTAAAGCA GTTTTAAAGT TGTTTGCCAA GAATTTACAT
168061 TAAAATAGCA TAAGCTTTTG ACTGGCTATA CATTGTTCTT TGTATTACAA ATCTCGGGAA
168121 TATGTAGGTA ATAGATGAGG CAGCCAGTCA GGAACAAAAT GCTTTTAAAC ATGGGGTCTT
168181 AACTGAAGAC CTATACTCCT GCCTCACTTG TCCTGATAAA TTTTGCATAC CTCACATAGC
168241 TCAGACTGCT CTAAATTATT TCATTATTTT TCTTTTCTCA GTCTTCTAAC TTTTTTTTTT
168301 TTTTTTAATG AGACGGAGTC TCACTCTGTC ACCCAGGCTG GAGTGCAGTG ACGCTATCTC
168361 GGCTCACTGC ACCTCCGCCT CCCGGGTTCA AGCGATTCTC CTGCCTCAGC CTCCCGAGTA
168421 GTAGCTGGGT CTACAGGTGT GCACCACTAC GCCCAGCTAA TTTTGTATT TTTAGTAGAG

Figure 8 (Page 52 of 73)

68/162

```

168481 ATGGGGTTTC ACCATGTTGG TTGGCTCGAT CTCTTGACCT TGTGATCCAC CCGCCTCAGC
168541 CTCCCAAAGT GCCAGGATTA CAGGCATGAG CCACCGTGCC CAGCCTCTTT TTCTTTTCTT
168601 ATAAGACAAG TTCTCGCTCT CTTGCCCAGG CTGTAGTGGA GGGCAGTGGC ATGACCACAG
168661 CTTACTGCAG CCTCGACCTC CTGGGTTTAA GCAATCCTCC TGCCTCACCC TGGCAGAGTG
168721 GCTGGGACTA CAGGTATGTG CCACCATGTC CAGCTAAAGT CTTCTCTCCA GAAAGAAGAA
168781 ATGCATTGGA ATTTAGAGGA TACACAAACA TCTAGCTGTA TAGCTAATAC AGTAGCCACT
168841 ATCATGAGTA GGAATTTAAA TTAACTTAA TAAAAATTAA AATGAAAAAA TTCAGTTTTT
168901 CTGTTCCAGT TGCCACATTT TGATTGCTTA ATAGTTGCAT GTGACTAGTG GCTACATAAC
168961 AGCCTCAATA TACAACATTC TGTTATCACA GAAAGTTACC TTGGACCAAG TGCTGGGAGA
169021 AGCAATGCAG GCTTCCTCAC AAAAGCTGTA AAAGAGAGAA CTCAGGGAGT GTGAAACTCT
169081 TTCTTATTCT AGTTAACTTC AAGAATAATT GTTACCAGGC CAGCACGGTG GCTCACGCCT
169141 GTAATCCTAG CACTTTGGGA AGCCGAGGCG GGCAGATCAC CTGAGGTCAG GAGTTTGAGA
169201 CCAGCCTGAC CAACATGGCA AAACCTCATC TCTACTAAAA ATACAAAAAG TTAGCTAGAT
169261 GTGGTGGTGC ACACCTGTAA TCCAGCTGCT TCAGGAGGCT GAGGAAGGAG AATGACTTGA
169321 GCTCCGGAGG GGGAGGTTGC AGTGAGCCCA GATTACACCA CTGCACTCCA GCCTGGGTGA
169381 AAGAGCGAGA ATCTGTCTTA AAAAAAAAAA AAAGAATAAT TGGTACCAGA GTTACTCTTT
169441 GTAATTAGTA GTAACACTTA TGCAATTGGG TGATCTGTGA CAGATTCCAT TGAAGCTGTA
169501 TGGGGAGCTT CACCCCAATA TATGACTCCC TGGTATAATG AGTATTTTGA ATTAAAGGCC
169561 CTTAGAGATC AGCAGATGCT GGAAGAGACT TTTCCCTTAT CTACATAAAG ACCAGTCACA
169621 CTAGACAAGA AGAACAATTG TTTTCTCTTC CAACCCCTAT TATCTCATTT TGTACTGAAG
169681 AAAAGAGGAC TAAGAATGTA ACCAGACCTA ATCAGACACT TTCACAAAAT AATGTCTGTC
169741 TCTCAGGCTC ATTCATTTTC CAAAGAGAAC CATTTACAAG TTAAACTCTG TTCTCCATT
169801 CATTATCCT CCCAAATATT CATTTATTCT CCCTAGTAAT CATTTACTGC CCTCAAAGA
169861 ATTACCTATA TTCTCTGAT ATCACCCTTC CCCTCTGAAA TAAATATGTA TACATGTATA
169921 AACGTTATAC ATACATATTT ATACAGTATA CATACATATT TATACATACA TACATATGCA
169981 TACATATTTA TATTTATGTA TTTATACATA AGTATTTATA AATAAGGCTA TATAAGTATC
170041 TACCCCATTT GGCAGAGGGG GTAATCACTC TGTGATTCTA GCCCATGTAC TTGTTAATAA
170101 ATTTGTATGC CTTTCTCCA ATTAGCCTGC CTTTGTGAG TCGATTTTTC AGTGAACCTC
170161 AGAAGGCAAA GGGGAAGTGT TCCCTTGGCT CCTACACCAT CATGACAATA AAATTTGACT
170221 CCACCTCGAC CCCCCCATC CCCACAAAG AACAACAACC AACACTGGTT AATAAGGTCG
170281 GTTGTTTTTT GTTGTGTTT TTGTTGTTGT TGTTTTTGCT TTCAGGAGCA GAGGTATAAT
170341 AGGCAAAAGA AAGAGAAAGG AGAATAGTGA ATACCTCTTC TGCAGAGAGG GGTGCCTAAG
170401 TGGGACTTCC CTGGCTAATA ACGTCTTGCT AGAGACCCAA CCAGGAGGAT AATGGAAGCA
170461 ATCAAGGCAA CCAGAACAAC CAGAAGAACC GGTTTATCCT TTTGTGCCC TCTCCCTAAA
170521 CTGAGGGAAT AAGAATTGGA AAGAAGGCTG CAGAGCAGAG GGTTTGCTCC TGAGGAGCAG
170581 TTATTTCTAT GGGATCAGAG CTCTGCAGA ACTGGGGAGT TTACTTTTAC TATCTCTTCT
170641 CCAGGACAGG ACCTATCTCA AGAGACATGT TCAGAGTGAT TGCAACATAA AGAGTTTGCA
170701 GACCCAAGGA GGTAGGGAAG GCAGAAAGAA GATGGGGGAG GCCAGGGATA GGCAACAGAG
170761 GAGTGACCAG GAGCGAAAAA GCCTGCCTCT TCTGAGAACC TAGCTGGGCT CTCCCTGTAC
170821 CCCCAGTCCC TCCCCCCCCG CCGCCCCCAC ACCCCTACTC CTGGGAGCTC CTCTAGGACA
170881 GGGGCAGAGT CAGGAGGAAG TTTGAAGAGT GCCTAGAATA AAAACAGTA ATTTAACTAC
170941 AATTACCGGG TAGGCTGTTT TCCTCTCACA ATTTGATCAG TCTCTTGAAG CCACACAGAA
171001 TTTCTTCTGA AGACGTGTAT TCCTTGGCAG GCTATTTTCT CCAGTGATAC ACCAGGCCCC
171061 TCTCTGCTGG GGTCACTGCT CTTCTGGGGA GATGGGGCTC CCCTCCTTCC AAGGCTCCAG
171121 GGTTCTGTGC CTGGGCCCCA CTCATCTAAG TTCTGAATCT TCTGAGATTT GGTGTAAAGT
171181 CTGGTGAAAG AAAGAGCAGG AAAGAGGTGA GAGCTGTAAA ACAAAGAAAG TCCTGACCAT
171241 TTTCAGAGTT GGAGGGGCCC TGCTGTCACG AAATATATTC CCCACCCAC TTGCCATCAG
171301 TACACACTCA CATATCCACT GAGAAAACCT TAGCCTGGAC CTTTTCGTA ACCTTCACTG
171361 CTCAGACACT TACATATTCG CTGCTAGTCC CCTCTGTTGC TGCCACTTCC TGGGTCAGGA
171421 AGTTAACTCA GACCGGATTA AACTGAGAAG TGAACTACT GTGGGAGGCG GGGCTCATAA
171481 GATTTAGGAG AAAACTAGTG ACGTTGTTCA TATCATTTGC ACTCCGCCTC TCCGGTAAAG
171541 GAGGGGGAAA CGTAGGAAGA AAATATCCTT CTTTACAGC AATAAAAAAG AGGAACCAAT
171601 TAATAACCTT GTAACTATC ATGTGACCCC AACACAGAGT ATCTAAAAAC AGGAAGCCTG
171661 CAGAGGTTCA GTTCACAGAC TCTGATTGTA GATCTTTCTA CTTTGGCCAC CAACTCCCTT

```

Figure 8 (Page 53 of 73)

69/162

```

171721 GGGAGTCCTT AAGCCTTCCT AGCTGATGTT ACTTCTTTTG CTATTTATGG GTTGCTTG TG
171781 GTTCTATAAC TGCTCTGAAG GGTGTGGTGG AAAAAGGGGT GGTAACAGCA GTAGGACTCA
171841 TTGGCATCAC AAAATTCATC TGAGTCAGCT TTCTATTCTT CTCTGTCCCG TTCTGTGTCT
171901 TGTTTTTCTC CTTGCTGTCC TTCTGCAGGA CTCAGATCTT CTTCAATAGC GAGGGTCAGC
171961 CAGGATAGAA AATGGGAGTC ACTAGTGGCC CAGCAGTGAG TGCCCCCAGC TTAGAGCTGT
172021 GTGGGATCCC TGGGACCATC ACTCTGCTTT GTGCTTTGTG GAGAAAAGGC TGTGGGGTCC
172081 AGGGTCAAGT CCTTAATGAC TTAGCTCCAG CTTCTCCACT TCAAAATGAA AGGAAAAGTA
172141 CTATCACCAC CCGTTAGAAT TATTATTTCA TGGGGAAAAA AGATGGATTA CTATCTCACA
172201 ATAAGAGCTT GTCACATTTA TAAGTCTCAG GTGTAAGAGG CATTATGAT AACACATAA
172261 TAAATGCTGG CTTAAGTAGA TGCAGTGGTC CAAGGGAACC AGTAAGGGGA GCTCAGGACA
172321 CAGGTGGGAG GAGAAATTAA ACTTGAATTC TGGGAGCCAC TGGCCTGTCT GGGCCCCTGG
172381 CCTGCCTGCT GACCCTGATA GCCAATGGAA CATGGAGTTT GGCCCAGCTG CAATCCCTCT
172441 GGTCCAAC TA CTAATAAATA AGGCAAGATT GGGAAACACG TTCTTTCTT CTATACCAA
172501 GCAGAAGACT CTTCAGCACT GCACCCTCCT GGGTGCTCAC AGAGCCTTCT GTTGTTTTGC
172561 CACCTACGAT TCATCATGCC CTGGCATGAT GGTTGCAGAC CCCATGCATA GCATGGGACA
172621 TTCTACTCCT GAGGCAACCA GCACACAGAG AGAGGAGAAA GAATGAGCCC CTGAATCCTT
172681 GGTCCACGA TGAGTCCTTG CAGATATCTA CAACTTTTCAT TGTTGTGGAT GTGACTCTGT
172741 ACCCAGGCAT GGCTCATTCC AGATCTGTCC TATTGTCAGA GGTGTTCAAA CCAGAATGAC
172801 TCCATTTTGA ATGGGGGCTA GGTAATAAATA GGCTGAGACC TACTGGGCTG CATTCCCAGG
172861 AAGTTAGGCA TTGTAAGTCA CAGGATGAAA TAGGCAGTTG GCACAAGACA CAGGTCATAA
172921 AGATCTTGCT GATAAACAG GTTGACAGTAA AGAAGCTGAC CAAAACCCAC CAAAATCAAG
172981 ATGGCAACAA GAGTGGCCTC TAGTCATTCT CATTGCTCAT TATACACGAA TTATAATGTG
173041 TTAGCAAGTT AGAAGGCATT CCCACCAGCT CCATAGTGGT TTATAAATAC CATGGCGATG
173101 TCAGGAAGCT ACCCTATATA GTCTAAAAAG GGGAGGAACG CTTGGTTCTG GGAATTGCCC
173161 ACATCTTTCC CAGAAAACAT ATGAATAATC CACTCCTTGT TTAGTACATA ATCAAGAAAT
173221 AACTGTAAGT ATCTGTATTA GTCCATTTTC AACTGCTGA TCCAGACATA CCTGAGACTG
173281 AGTAATTTAT ACCAGGAAAA AATGTTTCAT GCTCTTACAG TCCACGTGT CTGGGGAGAC
173341 CTCACAACCA CAGCAGAAGG CAAGGAGGAG CAAGTCAGGT CTTACATGGA TGGCAGCAGG
173411 CAAAGAGCTT GTGCAGGGAA ATTCTTTCT ATAAAACCAT CAGGTCTCAT GAACTTATT
173461 GACTATCATG AGAACAGCAG TATAAATTAC TCAGGGAAAG ACCTGCCCCC ATGATTCAAT
173521 TACCTCCCAC CAGGTCCCTC CCACAATATG TGGGAATTTA AGATGAGAGT TAGGTGGGGA
173581 CACAGCCAAA CCATATCAGT ATCCTTAGTC CAGAAGCTGA TGCTCTGCCT GTAGAGTAGC
173641 CGTTCTTTTA TTCTTTTACT TTCTTGCTTT CACTTTACTG TGTAGACTTG CCCCAAATTC
173701 TTTCTCACAC GAGATCTAAG AACCTTCTCT TAGGGTCTGG GTTGGGACCC CCTTCTGGT
173761 AACACTATCA AAGGATCAGG AAAAGGAAGC TAGTGAATGC TAAAAAGGAA ACAAACTACC
173821 ATTACCAATA ATAACAGCAA GACAAAAGCA AAACGGATTG TGACAGCTGT CCCATCTCAC
173881 ACCTGTTTCC CATTGCAGGA AGGAGGGGCT GGTTCATGCA CAGAGTGGCC AATATTAGAA
173941 GCAGAGATGG GGTGCAGATG AGACTTCAGG AATATGTTGA CAAAGGCAGG CCTAGGGAGA
174001 AATCAACCTG AACTATCCCC AAGGAGGAAT GCATTATCTC TAATATGTAA AGTTAGGCTT
174061 GATCCTGTGA TTATGGGATA TAGGAGTCCA AAGACTCACA ATGGGAAGTA GGTCACTAGA
174121 GTCTCCTTCA GAAGCTCTGT ACTGTGTGTT CCCACTGTGG GCAAGAGTCA GCACTCAGCT
174181 ATTCTAGAA TGCCCTTTCT CAACTCCTTC AGATTTTGCC TCTCAACTAA CCCTATCCTG
174241 ACCACTTGTT AGCAAGTGTA CCCCTCTCTC CCTCCCAAAC ATTTTCAAAT CTATTTTGTT
174301 CCCATGGCAC TTATCACTGA ATATTTTACT AATTTATTTT GTTTAGTGTT TGCTTCCCTC
174361 ATGAGAATGC AAAGGGATGG ATTTTTTCA ATATTGTTCA CTGATGAATC CCAGTAACTA
174421 GAATATTTCT AAGCATAGTG ATGTGCATTA AATCAAAGAG TAACTTTCTG AATTGCACTA
174481 AACACACATC ACAAGAGGTG TGTGCACATA TGTGCATGAT GCACGTAGTG TGGTGTGGGT
174541 GTTGTGTGGG GTATGTGGTA CTGTGTGTGC TGTGTGTGGT ATGTGATACA TAGTTTGTGT
174601 TAGTGTGATG CATGTGATGT GGTATGTGTG TGCCTGTCCA TACATATTAG GGGTGGCGGG
174661 GATGTTAATA TGTCAAATGG TACTAGAAAG TATCAGAACT CATGGTGCTT ACTGGTTTCC
174721 CAGAGAGCTG CTTCTCTCCC ACCTGTAGGA TATACTGATG GTTTGGACAG AGAAGAAATA
174781 AAAAGAAGGC TGTGACCTAC TGGGCTGAGG AAATAAAAAAC GAAAGTAAAA GAAGAGCTGG
174841 GAAAAGAGAG TGGAGGGGCC AAGGGAAATT TCCCCTTGG CTTCTGGGGA AACTTTGCTG
174901 AAAAATCAAC TCACAAATTT ATTAACATGT ACACAGGGAG AACCATAGAA TGATTATCCA

```

Figure 8 (Page 54 of 73)

70/162

```

174961 CTTCCCAAGA GGGCTTAAAA GCTTATATAT TATCCTGGCA AAACAGATTA TGGGAGGGGA
175021 AGAAGAGAAA CTCTGTTGAT GGGATTACTG TTGCGGATTT TTGCTCCTTC GCTCAGCTAG
175081 GTCCGGGTTT TTGTCTCACA GCCAGGAAGA ATTAGGCATG CAGCCATCAA AGAATGAGTG
175141 GAGTAGAATT TATTAAGTGA AAGGAAAAGCT CTCAGCAAAG ACAAGGGTCC TGAAAGCAGA
175201 TTTCTGGTTT GCTCTTCACA GTTGAATACT AGGGCTTAAG ACTCAAATTC CTGACAACCTC
175261 CACCCGTGCC TACCAGTGCA TGCAGGCCTT TAGACTGAGC TACTCCATAT TGATTAATTT
175321 CCTGAACTGT GCATGTGTTA AGGAAAGGAA TCATCCACTG CAGGCATGTT TAGGCAAGCC
175381 CCCTGTGCAA GTTCCCTTAT CTGCACAAAA CATCCGGTGT AAGCACTTGT GGGGCAGGTC
175441 AGAGTTCTC TGGGTACCAT TCCCTTACTG TCTGCCTAAA GCAAGCTGGC CAACTCCTTT
175501 CATTACTAGG GAGAGTAAGT AGATCAGGGA ACAGAGATTA ACTTGAACAT TATCTTGTGA
175561 AAGTCCGTTT CAGGCATGGTT ACATTCTTGG TCTTACAGGA AGGGTAAATA AAAATAATTG
175621 CTCTTTTTTG TGGGTCTGGA TCTTAGGTAG ATAAAGAAAC TTTAATTCCA CGATGTGTTT
175681 TGGTAGGGAT AGTTGGTGGC AGGGATGTCA GAGAGACTTT GAGGCTTCTT CAGTTCAATA
175741 TGACCAAGGG CCATATATTA GGGTATCAAT TTCTGAGCCC CAACAAGAGC TTAGGAGAGA
175801 TGTGATAGCA TCACAGTGTG AAAGCAATTT TTTGTTTGT TTTAGAGACA GGCTCTTGCA
175861 CTGTCACCCT GGCTGAAGTA CAATGGTACG ATCAGAGCTC ACTGTAATCT TGAATGGGT
175921 TCAATGATC CTCCCATCTA AGCATTTCOA AGTGTGGGA TTACAGGCAT GAGCCAGGT
175981 ACCCAGCCTG AAACCTGCACC CACTTTCCTGA TAAACTTTTC AAATGACTAA AGGGGAGAGA
176041 GTAAGCACTA CTCAGAGGTA GGAAGAAAGG ACACAGGATT ATAGGATTAA AACAACAACC
176101 ACCAAAAAAA ACCAGACCGG TGTGGTGGCT CACACCTGTA ATCAGAGCAC TTGGGGAGGC
176161 TGAGGTGGGG GGAGTCACTG GAGGCCAGGA GTTCGAGACG AGCCTGGCCA ACATAGCAAG
176221 ATGCTGTCTC TATTAAAAAA AAAAAATACC TGCCCTGAGC TAATCAGAAT CATGGACCTT
176281 GACAAAGGAT GTCCCAAAGT AAGTCTTAGC ATTTTTTTTT TTTTTTTGAG ACAGTCTCGC
176341 TGTGTTGCCC AGGCTGAAGT TCAGTGGCGT GATCTCGGCT CACTGCAACA GCTGCCTCCC
176401 AGGCTCAAGC AATTCTCCCT GCCTTCAGCC TCCCAAGTAG CTGGGATTAC AGATGCCAC
176461 CACCACGCTT GGCTAATTTT TGTTTTTTTT AATAGAGATG GGGTTTTGCC ATGTTAACCA
176521 GGCAGGTCTT GAACTCCTGA CCTCAAGTGA TCTGCCACC TTGGCCCCCTC CATAGTGCTG
176581 GGATTACAGG CGTGAGTCAC TGCACCCGGC AAAGTCTTAG CATTCTTTAC AAACAGTTTG
176641 TACCCGTATC TCTAAAAGGG AGTAGTGAAT TTCACCCCAA AATGTGGCTT CCTGATATAA
176701 TGAGTATTTT GAATGAAAAA CTCTTAGAGA TCAACAGACA CTAAAGAGAC TTTTCCCTAG
176761 GTACATAAAA ATAGGATGGC CCCACCAGCG AGAACAATTG TTCTTTTCTC CCTCTCTGTT
176821 ATCTCATTTG GCATTATAGG AAAGACCAAG AATGTAACCA CACCTGAACA GACCTTTTTA
176881 TAAGATAATC AGTCTCTAAG CATCATTTAA ATTCCAAGGA GAACTATTTA CAAATTTATC
176941 TGTCTTTTGA TCCAATTAGT CTCTCCTGGT AGTTACATAT TGCCCCCTCA CAGAATTCCT
177001 CTTCTTCTGT TTCCCATAAC CTATTTTGCA AGGATCAAGC CCCTGTTATT TCTTCAACTT
177061 CAAGGTGGCA TATAAGCTTC TAAATTCAC TGGGATATTG GTACTATGTG CATGAGGAGA
177121 ACCACAGAGT AATTAAATTG TAAAGCCTTT TATCTTATGA ATCTGCCTTT TTTTGTGTTT
177181 ATTTTTCAGC AAAACTTCCA AGGGCAAAGG TATAAAACAA AAATAAAATT CTAAAGCCCC
177241 CCAACCATCT GAATAGACTT TCTCTTCAGT CAGGCTTCTT AAAATGTAAC CTGAAAGACT
177301 GGCTCAGGCC ATTAAGGGAA GTGGGGGTG AACATGCCTC ATTATTCCTC TCTGGCATT
177361 ACATCAACAC AGCTTTTAAG TCTGATAAGA AACATTTTAC AACCTATTCT CTCTGAAGCC
177421 TGCTAGCTAA AAACCTTCAT CCATAGTACA ACTTTGGTCT TCACAACCTG TTATCACAAC
177481 CTAGTGCTCC TTTCTATTAA TCCCAAATCT TTATACAAAC TCAACCAATT GTCATCACCT
177541 CCACCCCACT CCTCCGCTGC TTCCAGTTGT CCCGCCCTC TGGACCAAAC CAGTGTACAT
177601 TTCTTAAACG TATTTGATTG ATGTCCCATG CCTCCCTAAA ATGTATAAAG CCAAGGTGCA
177661 TCCCAACCAC CTTGAGCGCT TGTCTCAGG ACCTCCTGAG GGCTGTGTCA TGGGCCATGG
177721 TCACTCAAAT TTGGCTCAGA ATAAATCTCT TCAAATGTTT TACAGAGTTT GGCTCTTGTC
177781 ATGACACAGA TGACTGCTTC ACTGAAGCCT GCTCTGGAAG TGAGTGGGGG TTTTGCAAGG
177841 ATAATTTTCC CCGGATAGCC CCAGAAGCAG CTAGTAATAA TAACTTAAA GGTAGCTAAA
177901 ATGCATTGAA CACTTGTTTT GTGCCAGACC TATGTCAACA TTTGCTTTGT GCCAGGCTTA
177961 TGCCAGTACT CCTGATTTGT TAATACATTC TAAATAAAAA TTCTGGAGTT TCAAATATAA
178021 TAACTGAAAA ACAGAAAATA AATAAAAAATA TATAATAACT GAAATAAAAA TTTACTAAGG
178081 CTGGGGATGG TGGCTCACTC ACACCTGTAA TCCTGTTACC GGAAAGGGGT CCGTCCAGAT
178141 CCAGACCCCA AGAGAGGGTT CTTGGATCTC ACACAAGAAA GAATTCGGGC GAGTCTGTAA

```

Figure 8 (Page 55 of 73)

71/162

```

178201 AGTGAAAGCA AGTTTATTAA GAAAGTAGAG GAATAAAAGA ACGGCTACTC CATAGGCAGA
178261 GCAGCTCTGA GGGCTGCTGG TCGCTCATT TATGGTTAT TTCTTGATTA TGTGCTAAAC
178321 AAGGGGTGGA TAATTCATGC CTCATT TTT TAGACCATAT AAAGTAACTT CCTGACGTTG
178381 CCATGGCATT CGTAAACTGT CGTGGCGCTG GTATGAGCAT AGCAGTGAGG ACGACCAGAG
178441 GTCACCTCTCA TCGCCATCTT GGATT TGGTG GGGAGCAGTG AGGATGACCA GAGGTCACCTC
178501 TCTACGCCAT CTTGGATT TG GTGGGTTTA GCCAGCTTCT TTACTTTTTT CTTTTTTTTT
178561 TTTGCCCAGG CTGGAGTGCA GTGGCACGAT CTCAGCTCAC TGAAACCTCC AATTTCTGAG
178621 TTCAAGCGAT TCTCGTGCC T CAGCCTCCCA AGTAGCTGGG ATTACAGGCA TGTGCCACCA
178681 CACCCAGCTA ATTTTTTATA TTTTAAATAG AGACCGGGTT TCGCCATGTT GCCTACGCTG
178741 ATCTCCAAC CTGCGCTCA AGCCATCCAG CCACCTTAGC CTCCCAAAGT GCTGGGCTTA
178801 TAGGTGTGAG CCACCCACC TGGCCTAGCC GGCTTCTTTA CTGCAACCTG TTTTATCAGC
178861 AAGGTCTTTA TGACCTGTAT TTTGTGCCCA CTGCCTGCCT CATCCTGTGG CTTACAATGC
178921 CTAAC TTACA GGGAATGCAG CCCAGCAGGA CTCAGCCTTA TTTACCCAG CTCTATTCA
178981 AGATGGAGTC TTTCTTGTTT AAATACCTCT GACAAGCCCA ACACCTTGGG AGGATGACAC
179041 AGGAGGATTG CTTTAGCCTA GGAGCTCAAG ACCAGCCTGG GCAACACAGT GAGACCCAT
179101 CTCTAAAAA AAAAATACAA AAAAATTAGC CAGGCATGAT GGTGTGTGCC TGTAGTCCCT
179161 GCTACTCAGG AGGCTGAAGT GGAAGATGG CTTCAGCCCA GGAATTC AAG GCTGCATTGT
179221 CAGAGGCATT TGAACCAGAA TGACTCTATC TTGAATAGGC GCTGGATAAA ATAAGGCTGA
179281 CACCTGCTAG GCTGCATTT CAGTATGTTA GGCATTCTTA GTCACAGGAT GAGATAGGAA
179341 GTCAGCACAA GGTACACATC ACAAAGACCT TGCTGATAAA ATAGGTGTGT GTAAAGAAGT
179401 TGGCCAAAAC CCATCAAAC CAACATGGCC ACCAAAGGGA CCTCTGGTTG TCTTACTGC
179461 TCATTATATG TTAATTATAA TGTATTACA TGCTAAAAGA CACTCCTACC AGCATCATGA
179521 CAGCTTACAA ATACTGCGGC AATATCTGGA CTTTACCTTA TATGGTCTAA AAGGTGGAGG
179581 AACCCTCAAT TTTGGGAATT GTCCACCCCT TTTTGGGAAT GCTCATGAAT AATCCACCCC
179641 TTGTTTAGCA CATAATCCAG AAATAACTAT AAGTATGCTT ATTTGAGCAG ACCACGCTGC
179701 TGTTCTGCCT ACAGAGTAGC CATTTCTTTA TTTCTTACT TTCTTAATAA ACCTGCTTTC
179761 ACTTTACTGT ATGGACTTGC CCTAAATTCT TTCTTGTGTG AGATCCAAGA ACCCTCTCTT
179821 GGGGTCTGGA TCAAGACCCC TTTCTGGTAA CATCTTTCTG GTGACCACGA AGGGACAATA
179881 CTGAGGAGAC TCTGAAGCCA AAGGAAACAG ACTACAGCAC CAACTGGCTG ACTTTGGGTA
179941 AGTGGTGGAG TCCCCGGGTA AAGGATAGGA TTGGGTAGA GGTGCAACTT AGGGGAGATA
180001 GGGTCTCTCC TAAGACAGAG AGGGTTTCAG TCCGCTCTTA ATAAAGGGCA AGAATGCTTG
180061 ACCGAACTTG GGTTTGAGAC CCAACTTAGG AAGGCTACAG TCCTTAAGAT TTAAGGGGTT
180121 AGAGGCCCTT CTCAGTAAAG TCTCTCTTGG TTAAAAACGG ATTTAGCATT AGGGGATGTT
180181 AACTGCTATT CTGTTTGTAT TAATCTTCCC TGTGCTCTTT GCTGACAGCT ATGGGTGACA
180241 GGATTAGGCA TGTACAGGAT CACGGGACAT TGGGAACCTT TCTTCTCTCC AAAAGGGGAA
180301 GCTTGACAGC TGATAGGACT GTTGAAAAAG ATCCCTTTGC TATGACAAGC AGCCGCTGA
180361 ACTTTTGATT CAGTGTGCT GCAATGGGTG GGTCTTTCTC TGGCCTCTGT GAACCTCTCA
180421 CCTTCCCAT CTCACCACAG GCAATGCTTT TCTCCCTTTC TCTTTTTTCT CTTTTCTGTC
180481 TTTCTGT TTA CTTGAGACAA CCATCTTGCC CAGAGACCAT ATGTTGAAAC TCCTGGTCAG
180541 AAGTTTGATT AAAGATGAAA GGGCCTATCT GGGGGCAAGT TTGAGCCTTC CCAGTTAGAT
180601 ATTGGGTGCT AAGTGGAGTG GCCAATGTCT ATGTTTTGTC ACATGTATAT TGCTCTGGCT
180661 GAAATGGAAA ACGTTAATTT GGT TACTTTA TGTGGCCATT GGGCAGCATC TTACAAAAGT
180721 GAGAGACATT TATTTGCC TG GTTCCATG AAACAGAAAA AAGTTGGTTT TCTTTTGTGT
180781 CGTAGCTTGG ACCCAAGGGC TTTGCAGTGA GCAAGGTGCT TAGTGCTGCT CAGTGAAAGA
180841 GAACCCAGAA ACCTGGCATG CCAGCAAAAG GGTAAAGATT TCTTACCAGT CAGGCTTCTG
180901 GCCTCTCTCT CTTAGTGAAA ACTGAATGAA TGGTAAAAAT CACTGTTTAT CACCTCTGTA
180961 AAGTTTTGAT TAATGGGAAC AAGGATTTGT GGGGCTAGTC TTAAGCTGTA ATGAATCTGG
181021 TATACTTTGT GATATCAATT TGTCTTTCTG TATTACTCTG TCATAAAGAG GAATATGGTA
181081 GGATAGAACA TGGGCTCAGG ACTCCATAAG CCTGCTGTTC AAGCCAGCCC AGTAACTGG
181141 TCCGTTGCAA AGTTTATTAC AGGTCCCTGG AAAAAAAAAA AAATAAAAAC TGGATGAAGT
181201 TTCTTCTCTCA TCTTGTTTTA TGTCTTTTGG AGCTTCACCT TGTAACCACG TGGCGGTACT
181261 TTCTCTTGAT CTCTGCCATC CAGGGAACAG GAATTTTGGG GTTTATGTAA TAGTTAACTC
181321 TAAAAATTAT CTCAAGCCAT TGCAAGCTCA AAATTGGCTG CTCTGGACCC CTTCTGGGAA
181381 GGGCAATGGA AACTAACCAG TGTGTAGCT CAGCAGCTAA GGATTGTGCA TTTTATAATG

```

Figure 8 (Page 56 of 73)

72/162

```

181441 GCGGCCAAGG TTCAATCCTG GCTTAGGGAA TGAGTACTTT CTGATTGATA TCTGTGTGAC
181501 CTTTACCATT TGTTGATTCT GTTCTCTTCC CCTCCACACA CTGTCTTGAG TTTTCCTCTC
181561 TCTGAGAACC TGGGAGATTA TCTTTGGTAA AGTTCAAAAG CCAGAAATAA TGGCCGTGTG
181621 GGATGGCTAA AGTTGAGTAA TAAGAACTT AAAAGGACTC CTTTTTTTTT TGCTTTAGAG
181681 TGCTATGGTT TATGGTTAAA AGCTTAATTA AAAGTGGATA TTCAATCTCT AAAAGCCTGG
181741 GACTCCTTGG GAAAAGCAGA GGAGGCACCA CAGACCCCAT TTTGGGAAAA CCTCTGTTTT
181801 CCTCATGAAA CCCAGGAAC TGGAAAGTGA TAGATCCTTC GCAAATCTA AGGCTCTGTT
181861 TGGCTTTGCA TTATGTTATC TGATGTTTTT GACTTTTGGG GGTATCAGAA ATTACTTTGC
181921 ATTATGAGGG AGATCTGGTG TGTAATAACC AGGTAGGAAA TATACTTCTG GGGATAGCTA
181981 AAGGCAAATA TAGGTGAATA CTTGGCTATT TGCACTTTTG GATCACAAGA AGCATTCTCT
182041 TGACTACCTA GAAGGTATGG AAATGTCTCC ATCCCCACCG AGAGATAAGA TTCCCAGGGG
182101 AGATGGCTGA TCCCCAAAA GAGGGCTGAT TCCCTCTTTT GGGATCCAGG ATCTGGTATA
182161 AAAATGGGAC CCTGGCCAGG CACAGTGGCT CACGCCTGTA ATCTCAACAC TTTGGGAAGC
182221 CTCAGAGTTA TGAATGTCTC ACCATACTGA CACTTTGTGA CTGAGCTCCT CTCTACCCCTG
182281 GACACAAGAG ACCCTAATAA TTAGACAGGA ATATCATTGC CCCTATTTAG TCTGAAGAAG
182341 TTATAGAAGA CGGATCTTTA TCCCACGTCA ATCCTTAGGA TTAAGGGTTC CCTGGTAAAA
182401 GGGAGTGGGA AAATATGTCA GAGGCATTTG AATCAGAGTG ACTCCATCTT GAATAGGGGC
182461 TGGGTAAAAA AAGGCTGAGG CCTGCTGGGT TAGGTTAGGC ATTCTAACCA GGAGTTTAGT
182521 CACAGGATGA GATAGAAGGT TGCACAAGGT ACCCGTCACA AAGACCTTGC TAGAAAAATA
182581 GGTAACGGTA AAGAAGCCAG CTAAAGCCCA CCAAAACCAA CATGGCCACA AAAGTGACCT
182641 CTTGTCATCC TCACTGCTCA TATACACTAA TTATACTGCA TTAGCATGCT ACAAGACACT
182701 CCCACCAGTG CCACGACAGT TTACAAATAC CATGACAACA TCTGGACGTT ACCTTATATG
182761 GTCTAAAACG GGGAAGAACC CTTAGTTCTG GGAATTGTCC ACCTCTTTCC TGAAAAATTC
182821 TTGAATAATC CATTAGTTTA GCACATAATC CAGAAATAAC TATACGTCTG CTTATTTGAG
182881 CAGTCCATAC TGCTGCTCTG CCTATGGAGT AGCCATTCTT TTCTTTTATT TTTATTTTTT
182941 AGATAAAGAC TCGCTCTGTC ACTCAGGCTG GAGTCTGGAG TGCAGTGACG TGTTTTGGCT
183001 CACTGCAACC TTCACCTCCC GGGTTCAAGC AATTCTCCTG CCTCAGCCTC CCAACTAGCT
183061 GGGACCACAG GTGGGTGCCA CCATGCCTGG CTAATTTTTG TATTATTAGT AGAGATGGGG
183121 TTTCCGCCATG TTGGCCAGGC TGGTCTCGAA CTCCCTGGCCT CAAGCGATCC ACTTGCCCTG
183181 GCCTCCCAA GTGCTAGGAT TACAGGCATT ACCCACTATG CATGACCCAT TCTTTTATTT
183241 CTTAACTTTT TTTTGTTTTT TTGAGACAGA GTCTCACTCT GTCACCCAGG CTAGAGGCTG
183301 GAGTGCAGTG GTGCGATCTT GGTCACTGCA AACCTCTGCC TCCTGGGTTT AAGCGATTCT
183361 TCTGCCTCAG TCTCCTGAGG AGCTGGGACT ACAGACATGT GCCACTACAC CCAGCTAATT
183421 TTGTATTTTT AGTAGAGACA GTGTCTTGCC ATGTTTGTCA GGCTTGTCTC GAACCTCTAA
183481 CCTCAAGTGG TCTGCCTGCC TCAGCCTCCC AAAGTGCTGT GATTACAGGC ATAAATCACT
183541 GCGCTCGGCC CTTCTTTACT TTCTTAATAA ACTTGTTTTT ACTTTACTGT ATGGACTAGC
183601 CCCAAATTCC TTCTTGTGTG AGATCCAATA ACCCTTTTGT GTGTGAAAGA ATGTATTGCT
183661 GCTGTTCAAG CTGGAGCAAG CTGGAGCTCA TGCTGCTGCT CAGACTGGAG CATGCGTGAT
183721 CTGTGATCCC AGTAAGAGGA TCATGGTCAC TCCAGCCTGA ACGACAGCAT GATATCTCAT
183781 CTGTAAGAAA AAAAAATTAC TAGAGGGCTT TAACAGCAA TTTGAGCAGC AAAAAGAAGT
183841 AATCAGTGAA CTCAAAGATA GGTCAATTGA AATGATCTAC TCTGAAAAAC AGAAAGAAGA
183901 CAGAAATGAAG AAAAAGAAAT AGAGCCTTAG AGACAGGGGA TACCATCAAG CATACTAATA
183961 TATGCATAAT GGGACTCCTA GAAGGAGAAA AGTGAGAGGA CAGGGAGAGA GAATGTTTGG
184021 AGAAATAATT TCTCAAAGCT TCCCATGTTT GGCAAAAAAG CATTAACTTG CATACATATT
184081 TTAGGAGCTC AATGAATTCC AAGTAGGATA CACTCAAAGA GATCCATACC TAGACACATC
184141 ATAATCAGAT TATCAAAGA TGAAGAAGAT GAATCTTGAG AGCAGAAAGA AAGGAACAAT
184201 TCATCACATA CAAATAGTAC TCAAAAGATG TCTGGAGTAG GTATACTAAT ATCAGACAAA
184261 ATAAACTTTA AGATAAGCAT TGTATAATA AATAAAGAAA GGTATTTTGT AATGATAAAA
184321 GTGTCAATTC ATCAAGAAAA CATAACATTA TAAACATACA TGCACCTAAC AACAGAGCCC
184381 TAATATTCAT GAAACAAAAC TGACAGAATT GAAGGGAGAA ATAGAAAAAT CGACAATAAT
184441 AGTTGGAGAC ATCAATACCT CACTAGTTAG ACAAGATCAA CAAAAAATA GAAGACTTAA
184501 CACTTGAAAA CACCTAACCT GACCCTAACA TAAATCTATA GGTCACTACA CCCCAAAACA
184561 GCAGAATAAA CATCCTTCTG AAGCTCACAT GAAACATTTT TCAGGATAGA CTGTATATTA
184621 CTTCATGAAA TAAGTCTCAA TAAATGTAAA AGGACTATAA TAATAGAGTA TATATTCTCT

```

Figure 8 (Page 57 of 73)

73/162

```

184681 GACCAAAGTG GAATGAAGAT AGAAATCAAT AACTAGGCTG GCGTGATGG CTCACGCCTG
184741 TAATCCCAGC ACTTTGGGAG GCCAAGGCGG ACAGATCACG AGGTCAGGAG TTTGAGACCA
184801 GCCTGACCAA CATGGTGAAA CCCTGTCTCT ACTAACAAAA TACAAAAATT AGCCAGGCCT
184861 GGTGGCATCT GCCTGTAGTC CCAGCTACTC GGGACACTGA GGCAGGAGAA TCACTTGAAC
184921 CCAGGAGGCA GAGATTGCAG TGAGCTGAGA TCGCGCCACT GCATTCCAGC CTGGGAGACA
184981 GAGCGAGACT CCGTCTCAAA ATTAACAAAA AAAAAGAAAC TAGAAAAATA AGAACAAATC
185041 AAACCCAAAG CAAGCAAGAG GAAAATGAAA AATTTCAAAG CAGCCAAGAA CAAAAGGCAC
185101 ATTATGTACA GAAGAACAAG TGTATAGATC ACATATTTCT CATAGACACA ATATAAGCAA
185161 AAAGACAGTG GAGCAAAATT TTTTAGATTA ATGAAAGACC TACAATTCTG TACCAAGCAA
185221 AAAAAGTCCC CCCAAATGAG GGTGAAATAA GACAATTTAA TACAGAGAAA AGAGGAAGGA
185281 ATTTATCTAG TCATATGTGA GAGTTTTATG ATACATTTTG TACTGTATAT GTGGATGTTT
185341 TCTATTTTCAT TTAAAAAATC AACCGTGCAA TTAAATGGTA GATTGTCTTG CTTCTTTTGT
185401 ATTGACACAG TCATTAACCTA AAATATTGTA GTATTTTTTT ATCTCCCTGC CTAAAGGCAA
185461 TAAACATCTA ATCAGCAGAC TAGAACATA AAAAATATTT TTTAAAAGTC CTTTAGGCAG
185521 AATGATAAAA GTCCCTTAGG CATATTGAAA TTCTATTTTA TACAAAGGAA TAAACAGTAC
185581 TAGAAAATTGT AACTATGTGA GTAAACAGAT AATATTTTTT CTCCATAAAA TGTGGTTGAC
185641 TATTTTCACA AAAATAGTTA ACAATGTAAT GTGTGATTTA TAGCATTTAA AAGTAAAACA
185701 GGCCGGGCAC AAAGGTTCTG GCCTGTAATC CCAGCACTTT TGGAGGCCGA GCGGTGCAGA
185761 TCACTTGAGG ACAGGAGTTC AAGACCAGCC TGGCTAACAT GGCAAAACCC CATCTCTACT
185821 AAAAATACAA AAATTAACCA GCGTGTTGGT TGCACGCCTG TAATCCCAGC TACTCTGGAG
185881 GCTGAGGCAC AAGAATCACT TGAATCCAGG AGGTGGAAGT TGCAGTGAGG CAAAATTATA
185941 CCACTGTGCT CCAGCCTAGG CAACAGAGCT AGACTCTGTC ACACACACAC ACACACACAA
186001 AAGAAAAGTG TATGACAACA ACAGTGCAAA AGAAGTGGA ATGAAAATAA TGTATTTTTA
186061 TATAAGTGGT ATACTTTTAG ATGAACTACG ATAAATTAAT GATGTATACT ATAACTCTA
186121 AGGCAACCAC TGAAATAATG AAACGAAGAA TTATGGCTAA CAAGCCACAA AAAGAAAATA
186181 AATAGAATGA GAAAAAATAT TTAAGTTGTT CAACAGATGG GAAAAAAAAG AGGAAAAAGA
186241 GAACAAAGAA CAGATGGGAC AAATGGGAAA GTAATAGCAA GATGATAGAC TTAACCTCTA
186301 CCATATAGAT TATCACACTT AAGGTAAATG ATCTAAATAC TCTAATACAA AAGCAGAGGT
186361 TGTCAGATTG AATTAAAAAA ACAGACAACA ACAAAAAAAA GCAAAAAAAG AGCCACAACA
186421 TGCTGCCTAC AAAAAATTCA CTTTAATATA AAGACACAAA TAGTCTAGAA CACCATCACT
186481 TTTAACCTTA TTTACTCAA CCTCCTGATC CCTATTTATT TATTTATTTA TTTATTTATT
186541 TATTTATTTA TTTATTTATT TTTGAGACAG AGTCTGACTC TGTTGCCAG GCTGGAGTGC
186601 AGTGGCACCA TCTAGGCTCA CTGCAGCCTC TACCTCTCGG GTTCAAGCGA TTCTCCTGCC
186661 TCAGGCCTCC CAAGTAGCTG GACTATAGG CACATGCCAC CATGCCAGC TAATTATTAT
186721 ATTTTITAGTA GAGACGGGGT TTTGCCATGT TGGCCAGGTT GGTCTCAAAC GCCTGACCTC
186781 AGCCTCCCAA AGTGCTGGGA TTACAGGCGT GAGCCACAGC ACCCAGCTCC TCTTCATTTA
186841 TTCTTGCTAC GCTTCCTCCA ATCCATTTTG TGCATTTGAT GATTTTGCCA GTAACCTCTT
186901 TATTTTCTG GTAAATTTAC TTATGGGTCA CTGAGGACTG GGATGTTCTT TCTCTAGAG
186961 GGGGTTTGTG TCTGCTTTTG CCAGGAAGCT GGGGTACCAC CAGTCAAGTA TTACTTTAAA
187021 CTCAATTCAT GAATTGAGAC TTTTTTTTTT TTTTTTTTTT TTACGCAGAG TCCTACTCTG
187081 TCACCCAGGC TGGAGTGCAG CGGTGTGAAC ATGGCTCACT GCAGCCTCAA CCTACTGAGC
187141 TCAAGCAATC CTTCTGCCTC ACCATTCTGT ATAGCTAGGA CTACAGGTGT GTGCCACCAT
187201 GCCTGACTAA TTTTITAAAT ATTTTITTTA GAGATGGGGC TCACTTTGTT GCCCAGGCCA
187261 GTCTCGAGCT CCTGGGCTCA AGTGATCCTC CCACCTTGGT CTCCCAAAGT GCTGGGGTTA
187321 CAGGCATGAG CCTCTGTGGC TAGCCAAGAC TTTTITTTTT TTAGCCTAAA TGTGTATAAA
187381 AGTTGGCTTG TGGTTACAAC TTATCAGGAT TGATGATCTC TCTCTCTCTC TCTCTCTCTC
187441 TCTGTCTCTC CCCACCTCTC TCACATCCCT TGCTCTGCTG AGAAGCAGAG CAAACATTCT
187501 AGCAGTTTCC AGAGAGTAGG ATGGGATTAC TTCTAGTTTA CTTTITATCAT CCTTTGGGAT
187561 CGCAGTATTA CTGGGAGAAC ACAAGTATCT CTTATTAGAC ATACCACCTT TGTAAGATCT
187621 GGAATTTTCT TTTAGACTTT ATTTGTTTTT TACTATAAGC AATTTAAGTT ACAGATCTCT
187681 CTACACACTG TTTAAGTTGC ATCCCATGAA TTTTGATGTG CTTTATTGTC ATTATTATAT
187741 AGTACAATGT ATTTTGTAAAT TTTTGTGAT TTGTTGGAG AGATTGATTA ATTAGAATGA
187801 TGTTTAAATTT CCAATATATG GTGTTTTTTT CTACATTTCT TATTTTATT GATTTCAAAT
187861 TTATTTCTAC TGTAGTCAGA TTTAATAATT CATTTATTTT TATTATTTTC ATTTTITTAG

```

Figure 8 (Page 58 of 73)

74/162

187921	AGACAGGGCC	TTTCTGTGTT	CCCCAGGTTT	GTCCCAAAC	CCTAGTCCCA	AGCAGTTCTC
187981	CTGCCTCAGC	CACCCAAAGT	GCTGGGATTA	TAGGCACGAG	CCACCCGTGC	ACAACCAACA
188041	ATTCATTTAA	AAAGTGGGCA	AGTGAAC	ACAGACATTT	CTCAAAAGAA	GGCATACAAT
188101	TGGCCAACAA	ATATATGAAA	GAATGCTCAA	CATCACTGTA	TTAGTCTGTT	TTCATGCTGC
188161	TAATAAAGAC	TTAACCTGAG	ACTGGGGAA	TTACAAGAGA	AAGAGGTTTA	ATGGACTTAC
188221	AGTTCCACAT	GGCTGGAGAG	ATCTCACAA	CATGGTGGAA	GGCAAGGAGG	AGCAAGTCAC
188281	ATCTTACATG	GATGGCAGCA	GGCAAAGAGA	GAGCTTGTGC	AGGGAACTC	CCGTTTTTAA
188341	AACCATCAGA	TCTCGTGAGA	CTCATTCACT	ATCATAAGAA	CAGCATAGGA	AAGACCCGGC
188401	CCATAATTCA	GTCACCTCCC	ACTGGGTTC	TCCAGGACA	CATGGGAATT	GTGGGAGTTA
188461	CAATTCAAGA	TGAGATTTGG	GTAGGGACAC	AGCCAAACCA	TATAAATAAC	TAATCATCAG
188521	GGAAATGCAA	ATCAAAACCA	CAATAAGGTA	TCATCTCACC	CCAGTTAGAA	TGGCTATTGT
188581	CAAAAAACA	AAAAATAACA	AATGCTGGTG	AGGATGTACA	GAAGAGGGGA	CTCTTATGTC
188641	CCACTGGTGG	AAATGTCAAT	TAGCATAGCC	ATTATGCAAA	ATAGTATGGA	CTGAGGTAG
188701	GTTACATAGG	GTGGTCACAG	CCTCCCTTGA	AAGGAAACAA	GAACTTGTGC	AAATTGATGG
188761	AGAGAACAAA	TCTCTTGACA	TTACACAAAC	TGCATCTGGG	GCTAGTGGTT	AGAATATCCT
188821	CAGTCAAGGA	GGTAGAAGAG	CAGGAGGGAA	AATCCCTAAG	TTCGTGCAAG	TGCAGAAACC
188881	CACAAGCTGT	GTTCTCAGGT	TGACATATAC	TCATTTTAAT	AGTAAGAAAC	ACACCCCTGG
188941	GTAGAGAATT	AAAATGCTAA	TAATACATGT	GATGTATGTA	CTAGCGTGTA	TGGCAATATT
189001	GCATGCACAT	TCAAGAGACC	ACCCAAAACA	TATTTAACAA	CAATGCCCAT	TCCCACCCCC
189061	TCATGGATAA	TCACGTAGGA	CTCCATAAC	GGGAGTTTCT	TCAGTGTCAA	TTGGTGCTGA
189121	AGTAGCCGAC	CCTGACTCTG	CTATCAGCGT	GTACTTTCAC	CTTGCAATAA	ACTCCTTTGC
189181	CTACTTTTAC	TTTGGACTGG	CTTTCAAATT	CTTTTGTGCA	GGGAATTCAA	GAATCTGAAC
189241	CAGCCTACTG	ACAACAGAGG	TTTCTCAGAA	ACCTAAAAAT	AGATCTACCA	GATGAGGCTG
189301	AAAATCTGCT	ACTGGCTATT	TATCCAAAGG	GAAGGAAATC	AGTATACAAA	GAGACACCTA
189361	CATCCCCATG	TTTATTGCGT	CACCTTTCAC	AAGAGCTGAT	ATATAGAGTC	AACCCTAAAT
189421	GTTTCATTAAC	AGACAAATGG	ATAGAAAATG	TGGCATATAT	ACACAATGAA	ATACTATTTG
189481	GCCATGAGAA	GAATGCAATC	TTGTCAATTT	TGGCAACGTA	GATGAACTG	GAGAACATTA
189541	TGTTAAGTAA	GATAAGCTAG	GATTGGAAAG	ATAAATACTA	CATGTTATCA	CTCATATGTG
189601	AAAGTAGAGA	AAAATTTTTA	GCTCATGGAT	TTAGAGAACA	GAAGTGTGGG	TACCGGAAGC
189661	TGGGAAGGGT	AGCAAGGAGG	GGAGGATAGG	GAGAGGTTGG	TTAATGGTGA	CAAAATTACA
189721	GCTAGATTGT	AGAAATGAGT	TCCGGTGTTC	TGCACCATTG	TAGGGTGCAT	ATGGTTAACT
189781	CTCATTTTATT	GTATATTTTC	AAAAAGCTAG	AAAAGAATTT	TGAATACTCA	CAACAAAATA
189841	AATGATAAAT	GTTTAAGGTG	ATGGATATAC	TAATTACTCT	GATTTGATTA	TTACACATTG
189901	TGTACACATA	TAAAAATATC	ACTCTTTATC	CCGTATATAT	GTACAGTTAT	TATATGTCAA
189961	CTAAAAATAA	AAGAAAAAAA	GAATATGATC	TATCATGATG	TATATATCAT	GTGTACTTGA
190021	GCAAAATGTG	CATGCAGATA	TTGTGTATAA	TGTTCTATAA	ATCAATTAGC	TCAAGATAAT
190081	AGATAGGATT	GTTTCAATCT	TCTGTGTCTT	TACTGATATT	TTGTCTAGTT	ATTGCATCAT
190141	TACCAAAAAA	AGGGTGTAA	ACTCTCCAAA	TGTGATTGTA	GAATTGTCTA	TTTTGTCTTT
190201	TCTTTTCCAT	TTTTACTTTA	TGTATTTTGA	AACCTCTGTTA	TGACATTTTG	CTATGTATTT
190261	TAAACTTTCG	TTATGTATTT	TGAAACTCTG	TTGTTAGAAT	CATACATTTA	TGATTATTAT
190321	GTTTTCTTGA	TGAAATGACA	CTTTTCTATT	GTCATTGTTT	TTGTTTTTTC	TGAAATGGAG
190381	TCTCACTCTG	TTGCCCAGGC	TGGAGTACAG	TGGCACAATC	TTGGTTCACT	GCAACCTCCA
190441	CCTCCTGGGT	TCAAGCGAGT	CTCCTGACTC	AGCCTCCAAG	TAGCTGGGAT	TACAGGCATG
190501	TGCCAGCATG	CCAAACTAAT	TTTGTATTTT	TATTAGAGAC	AGAGTTTCAC	CACGTTGGCC
190561	AGGCTGGTCT	CGAACCTCTG	ACCTCAGGTG	ATCCGCCAC	CTCGGCATTT	TTATTTTATT
190621	TTATTTTTTT	GAGACAGAGT	CTCACTCTGT	CACCCAGGGT	AGAATGCGGT	GGTGTGATCT
190681	TGGCTCACTG	CAACCTCCGC	CTCCTGGGTT	CAAGCAATTC	CCATGCCTCA	GCCTCCCGAG
190741	TAGCTGGGAT	TACAGGCACA	TACCACCATG	ACTGGCTAAT	TTTTGTATTT	TTAGTAGAGA
190801	TGGGGTTTTT	CTATGTTGGC	CAGGCTGGCA	ACTGACTCCT	TTAACAATAC	AAAATATCAC
190861	TCTGTCTCTG	GTAACACTCT	CTGTCTTAAA	CTCTATTTTA	GCTGTTATTA	TTATAGCCAT
190921	TTTAGTCTTT	TTATGCTTTC	TGTTTGCATA	GTGTATATAT	TTTAATATGT	TTATTCTCAA
190981	GTTATCTGTG	TTTTTATATT	TAAGATGTTT	CTCTTCTAGC	CAACGTGTTT	GGTTCCTGCA
191041	TTTTTAAGTC	GATTCTAACA	ATCTTTGCCT	TTCAATTGAA	ATATTTACAC	CATTAAACATC
191101	TAACATTAAC	ATTTATTTTT	CTTTCCACAG	TACACTGGCT	AGCATCTCCC	ATATAATATT

Figure 8 (Page 59 of 73)

75/162

```

191161 GAACATAAAG TGTGATAACT GACATCCTTA TTTTCATTCTT ACTCTGAGTG GAAAGGGCAG
191221 GGGTGGAGAA AGCATTCAAC AATTTGCCAT AATTATAATG CTTTTTGTTA CACTGTTTTTC
191281 TTCTGCATTA AAAAATATCA TTACATTTTG CATGAATTAT TAGGAGAAAA TATTTTCCAA
191341 TTTTCCTGGA AAATGCCATA ACCACGTCTC TCAATTTTGT TTCCATCTTT CTTCCACATT
191401 TTACATAACC TACATAAGAG ACACATTATC AAGTATATTT TACATGGCTT CTCAGTGTCT
191461 TCTCTGTCTG CTAACAGGTT TACCAAGAGA TGGCACTCTT GTATTTCTGG TGGCTATGTC
191521 CATATCGTTT TGCCTTTAAG ACAGCGTAAC TACTTCTTTC ACCAGTATTA AAGACATGTA
191581 CATTTGATCT GGTTCCTGTG GATGATTTTA AATGACTCAA GCTAATAATC CTAATTTTAC
191641 CTAAACACTC CATTATTTTA AAATGTATTC CTTTATGCCC ACAATAAACA TTTATTGACA
191701 TTAGGCTGGA CATTAGGCTT CTCTATGGCA GACATTAGGC TGGACCCTAG CCATATATCT
191761 ATTGAGGGAA AAAAAATTAT TTTCTATATA AGTTTCCAGA AAGCCAAGAT GTGTTTTAAA
191821 AACAAAACAA AACATTACAT TCTAAATGCT GTAACAAGAT AAGAAAAAGT GTTGAGGCTG
191881 AGAGAAAGAAC AAAGCAGCAA GCAACTCCTG GAAGGACCAC TGCTGCAGAG GTAATAACTG
191941 GTGAACCATG TTTTGGAGAA GGAAAAGGTC ACCAAGAGAA GGAGGGGGTC CAGGGTGTTC
192001 AGAAAGATTG CATGCATAAA GATCAAGGGT AATAAAAAAA ATTCCGTATT ATGTAAATGT
192061 GAAGTTCCAG GACCATGAGC TTGGAGAGCA TGAAGTACAG GAGGAGGGTT GGTTCAAAT
192121 AAATCTGGGA ATGAAACAGT GAAGCCTCTG GCAGAACTCA CATCTCTTTC CTCCCCTCTT
192181 CCTTGCACAT TCCCTTTATG GAGTAATTGC AGGGATGGGA AAAGTTCAAA ACCACCCTG
192241 AGCCTAGGAA GTGCTAGGGT AAAGTGGAGA ATGAACCTGC GTGATTTGCT CATCCTAAAC
192301 TAGGTTCTTC TAGGAGAGCC CTTCCCCATA AAATCTGCCC TCCTCGAAGG GGCCCGAGACA
192361 GCCTAAGCTC ACCTCCCAAA GACCCCTTAC TTGCTGACTG AATCTGATTC CACCCAGACA
192421 TGGCCTAAAA CCCTTCCATA ACTCTATAGC CAAATTCAAT TTTAGACAGG CCTCATACCA
192481 ACCTTTCTTC CTCTAAGTCT GCCACCCTAG GCAATTCTCA ACATTCTCTA CACACTTTGG
192541 GGCCATAGAC GTGCTACCAA GTCTCCAGAC CTAGACCTGA TGGAGCAGTG CTGTAATGAG
192601 ACGACCACTG GCCTTTGAAC CAGACCCTTC TCTGTGGCTC CTATGCATCT CCAACCTGTT
192661 TTGAGCACTG CTGCCAAGAC ATCTTTGGCA CTTTGTGTGT AAGTTTTAAA ACTGAACTAA
192721 TCTACAAAAC ACCTAACCTT TAAAAATTCA TTGTCAATTC ATATCATGAA AGATAAAGAA
192781 AGGCCAGGAA ACTGTTCCAG GTTAATAGAG ACTAAAGAGA TAGCAACCAA ATGCAATTTG
192841 TGATCCTGGA TTGAGGGGAA AAAGTGTGTG CAGAGACATG ATTGGGACAG CTGGTAAAAAT
192901 TTGAATTTGA ATTTAAAGAT AAAGTATTGA GTAATATAGG AAGATGATTA TCTGCAACTT
192961 TCAAATGTTT CAGTAAGTAT ATATATATAT AAAGAGATAT AAAGACATAT AAATAAATGG
193021 ATAGGTAGAG AAAAAGCAA TGTATAATAT TAACAATCTA GGTAAAAAGT ATATGAGTGT
193081 TCTTTGTA CTGTTTCTGA TTTTCTATA TGTTTGAAAT CATTTTAAAA TAAGAAGGTT
193141 TTTGGGTTTT TTTGTGTTGT TTTTGTGTTT TAGAGACAGC ATCTTATTCT GTCACCAGGC
193201 TGTAGCTCAG TGGCCCAATC ATTGCTCACT GCAGCCTCAA CTTCTGGGGC TCCAGTAATT
193261 CCCCTACCT CAGGCTCATG AGTAGCTGGT ACTTCAGGTG TGCACCACTG CACTCAGCTA
193321 ATTTTATTTT TTAAATTTT TGTAAGATG GCATGTTGCT ATGTCACCCA GGCTAGTCTC
193381 AAACCTCTGC CCCCAAGTGA TCCTCCCACT TTGGCCTCCC AAAGTGCTAG AATTATAGGC
193441 ATGAGCCACT GCACCCAGCC CCAAATAAAA AAGTATTTTA TTTTAATTAA CTAATTAAC
193501 TTGAGTCAGA GTTTCACCTT TGTCACCCAG GCTGGAGTGC AATGGCATGA TGTGGCTCA
193561 CTGCAAACTC TGCCCTCCTGT GTTTAAGCGA TTCTCTTGCC TCAGACTCCT GAGTAGCTGA
193621 GATTACAGGT GCCTGCCACC ATGCCAGCT AATTTTATA TTTTATAGTAG AGACGGGGTT
193681 TCAGCATGTT GGTCAAGCTT GTCTCAAACT CCTGACCTCA GGTGATCCAC CCACCTCCGC
193741 CTCCGAAAGT GTTGATGAGC CACCACACCC GGTCTAAAAA GTATTTTAAA ACCACAGTCC
193801 CACTCTACCT TGTCCTACAC TACCAGGGGC TAGGATCACC CCATGTCTTC TAGGCTATGA
193861 GATAGAGGAA TCCAAGGAAG AAGATAAGCT ACTTGGTTCC TCTATAGGGT CTTGTGTGTG
193921 CTCTCATGTG CTCTCTCTCT CTCTCTCTCT CTCACACACA CACACACACA CACACACACA
193981 CACATGAATA CCAGAGCTAT CACTTTCCCA GTCTAGTACT CATCTCATCC CAAGGGTTTTT
194041 GTGTTGTAGT GGTGTTGCTCA TTTCTTTGTT TTGTTTGTGTT GCTTGGATTA TTCTTTTTCT
194101 CTTTTTGAG CTGAAGGGAG AATTTCCAGG CCAGCCCTTT GGCCATTAGA GTTACAGTGC
194161 CTCTATTGAG GCTTCATAGA GAGACCTGGG ATTCAGTAGT GGGGGGCTTT TATCCAGTTC
194221 AAAATAATGC ATTCTACCA AGATGTACTT TGAAATAAAA CAATACTAAA ACACAAAATT
194281 TTATTTATGC TGAACATTGA ATCACTTTT TCTGTATTTT GTGTAGAAAAG TTATACACAC
194341 ACAAACACAT TTGCTCCTGC TTTGTTTATT GGCCAGGGG TATGTTTGGT AATACTTCAT

```

Figure 8 (Page 60 of 73)

76/162

```

194401 CAGGCATGAG TAGTACGTCT TGGGAAGGTGT GGTCTAAAGC CTAGACTCCT ATCTGCTTCC
194461 TTCAGCATT C TCCAGTGTAT CTGTCTATCTG TCTACCTTAG GATAGGGGTC TCCAGAACTT
194521 CCATTACAT T TAGAAGAGG GCAGCGGCTT TCTATGGAAA ATATGAACTC TCATTCATCT
194581 CTATTCCTT T TCTAGCTAT GGTCCAGCTC AGCTGTTTGG AATAAAGTAT CTATATGAAG
194641 TCTGCGAATG GTTCTCAGAC TGGTTGAACA TTAGAATCAC CTGAGTACCT TCTAAAATTC
194701 TTATTACCCA GGGCATATCT CAGAATGAGT ACCGCAGGGT AGGGATAGGA TTAGGGATCA
194761 TGATCTCTGG AGTCTGGTTT AGGCACTAGT GCTGTTTAAA ACTACGTTCA TGAGGTGGAG
194821 GTTGCAGTGA GCCGAGATGG CGCCACTGCA CTCCAACCTG GGCGACAGAG TGAGAGTCTG
194881 TCTCAACAAA AAAAAACAAA AAAAACCAAC TACCCTTGTG ATTTGAATGT CCATCCAAAA
194941 TTGAGAACCA TTAGGTAAGG CCAAGCTGTA TAATTAAAGA GCAGTTTTC TTTGTCTGGT
195001 GTGGTGGCAG CTTTTTGATA AGGGAAGTAT TGTGTCATC CACATACCTG AGCCTCACTC
195061 CTGAGAACAC TGGTGTGTAT GTTGCTAAAA TTCCCAGGT GATTCTGAGG TTCCTTCCTG
195121 GATAAAACC ACTGACCCTG GGAATGTACC CACTGCCAAT CTCCTGCGTA AACCTTGGAT
195181 ACTGGGAAGC CTACAGTTGA AAATATTGGG CTTGAGATCC TGAACAAAT CTTGTATTTC
195241 ATTAAGACTA ATATTTGGTA CAGTGCAGCA AATCAAGGGA ATTTTGGTGG CTGAGTTCTT
195301 TTAGAACTTT TGCATTGAAA TAGGTTCAAG CAGCAATAAG TTAAACTAC AACCTCAGCT
195361 AAAGGATTAA AAGACACGTG AGCTGGGTAG GATGAGGTCT AAGGTTGGGT GTGGCGGCTC
195421 ATACCTGTAA TCCCAGCACT TTGGGAGACT GAGGTGGGTG GATCACTTGA GGTGAGGAGT
195481 TCAAAACCAG CCTGGCCAAC ATGGTGAAAA CCCATCTCTA CTAAGAATAC AAAAAAATTA
195541 GCTGGGCGAG GTGCCAGGCA CCTGTAATCC CAGCTACTGG GGAGGCTGAG GGAGGACAAT
195601 CACTTGAACT CAGGAGGCAG AGGTTGTAGT GAGCTGAGAT CGCACCCTG CACTCCAGCC
195661 TGGGTGACAG AGCAAGACTC CATTTAAAAA AAAATAATA ATAATAACAA TAATAATAAT
195721 TCAGACATAT CCAGGCATCA AACAGATACC TGGGGCAGAT GAATAGTCTT GAGATTCAAG
195781 TCACACATGA AATTTAGGTG GAAAATGACA TTGGAGAAAT TTGAGATTAT GATGAATGGA
195841 AATTTTTTCAA AGAGGAATTT CAGGCTCTGT TCTTGAGGGG ATAGATGGAC TTCCAACAGC
195901 AATAACACAG GATTAATGAG GACTTGGGAT GTTACATAAA TTAGAGATGT TAGATGGATA
195961 AAGAGATAAA AGTACTCTCT CTAAGAACAT GGGACCAGAG ATAGGCTCAC TTCTAACCAT
196021 CAGATATAAC TAGCAGACTA AACGGTCTAA AAATAAAAA CATGCCCCAC TCCTGCTTAA
196081 GACATTTTAA TTA CTCTCAG TAACTCTTCA GTTTTTCTAC TGTGTTATCT TTA ACTACAG
196141 GGTGGTCTG GGTGTGCAAC ACAAGAAAGC CTGGCATATA CATGGATTCA AGTGTATGCC
196201 ATGTGCAGGT ATTCTTTTCAT GTACTATTTT ATGTATTCTT TTTCACATCT GTTTTTTCCT
196261 TCATTGAAGT CAATGGCTGA TATTAGATTC TACTATTCAT GTGTACTAGT TATATATAAT
196321 TGTTACAAAA CAAATTAGCA AAAACTTAGT GGCTTAAAGC AACACACATT TATTATTACC
196381 TAAGGTCTGT GGATAGAAGT TCTGACATGG CTTAACTGGG TTCCCTGCTT CAAGCCTCAT
196441 GTGGCTGCAA TCCAGGTGTT GGCTGAGTCT GAATTCTCAT CAGAGGCTTG ATTGTGGAAA
196501 TTTCCACTTC CAAGCTCCCT CAGGTTTGTT GAAAAATTCA GTTCTTTGCA CCGGTAGAAG
196561 CTTCTTGGTA GAGGCTGATT CAACTTCTAG AGGCTGTCTG CAGTTCCTGT CACCCAGGGT
196621 GGAGTGCAGT GGAGCAATCA TAGCTCACTG CAGCCTTGAC CTCCCAGAAT CAATCTGTTC
196681 TCCCACCTCA GCATCCTGAG TAGCTGGGAC CACAAGTGTG TGCCATCACA CCTGCCTAAA
196741 AAACAAACAA ACGAAAAAAA ACCCCCAGAG AACTTTGTAG AGACAAGCTG GTCTGGAAC T
196801 CCTGCGCTCA AGCAATTCTC CTGCCTTAGC CTAAAAGTTC TGGGATTATA GGTATAAGCC
196861 ACCATACCTG GCATATGGCA AGTCTTGAGC AGGACAAATA CAGATGATTT ATGTCTGTCT
196921 TCCATGGTAT TCTAGGTTAT TGTTGAGATG GTCCTCTATT GTCTTGTTCC ATCTATTGAT
196981 TAGATAAAAC GTTGTTCCTT CTGTTATTTT TCAACAGTAG CTTTTATGTG TCTCTCTTTA
197041 TCTTAAATTT CTAACCAAAG AGCTGCTCTT TTCTTGGTGT ACTTTACCTT TGGTTGATCC
197101 TTCTTAACCT CTTCTTGCCC TCTGGGGCCT AAGATGAGGG CTGTTATCAG ATGTGAGTCT
197161 ATGGGAAAGC AAGCAAGAGG TTCTTCAGCC TCCGTTCAGC CTTAAATGTC TAGGTAGAAA
197221 TCAGTCATGG CCCTTCCAAT GTGGTACAGA CCAGATCACA GAGACAGGGG TCTCAGCCAA
197281 GGTCTTGTGG CTAAGCCTT ATAGAAATAA TGAGTGTTTA CTTACTTGGA GAACTCCCTT
197341 GGAATATCTT TTTTGTGAA CCTGAGGCAA CTTTGGTGA TTTCTTGATG TCTTGGGAAT
197401 CTTGGTCTAG AGCCATTTCA ACCCGATTTT TTTTCATGTC AGTGGCATT TGTGACCAGA
197461 TAGTAAATAA GTTCTATGAT GTTCACTCAG AGAAATACAA TGACTTATGA TGCGAAGCTT
197521 CTGTGGTTCA GCCCTTACTT CATCTTCATT CCCTCTTATC TGCATCTGTC TCCTGCTTGG
197581 GAACAAAAGT CTGGCTTCAT TCTATGACCC CCACGTTGAG TTTCTTAGTA GCACCTACTT

```

Figure 8 (Page 61 of 73)

77/162

```

197641 TTCAATTAGG AGTGTCTCA CTTCTATCCG TCAGACATAA CTAGCCGACT AAACAGTCTA
197701 AATATAAAAA TCATGTCCTA CTCCTGCTGA AAACATTTTA ATTACTCCCC ATCATTTAAT
197761 TTTTCTACT GGGTTATCTT TAACTTCAGA GTTGGTCTTG TGTGCAACAC AAGAAAACCT
197821 GGCATATACA TGGATTCAAG TGTATGCCAC GTGCATGTAT TCCTTCATGT ACTATTTTAT
197881 GTATTCTTTT TCACATCTGT TTTTCTCTCT AAAATTTTATT TCCTTTTAAA AATGAAAATT
197941 TTGCATTTGA CTAAATTTGT CAAATTTAGT CAAATTTGTT TAAAACCATT TTTAAAATGT
198001 TTCCCGAAGT TTTGAGTGAA GTTAGTACTT CAGAAAAACT GTTTTGTATT TTTCTGTGA
198061 CCTCAGTGCA CTGCTGTGCA TTTCCATTTC TGCCTCCACA CACATTTGTT TTGAGGAAAT
198121 ATAGGAACGA CAAGATAAAG TTCAAGCTCC TGGACATTGC ATAAAAGACC GTCATGACCT
198181 GGTCTGTGTT ACTTCCCTAG ATTTCCCGCT ATTTCTTAAG TTGAGATTTT TGGTTTGGAT
198241 GCTTTGTGTT TTCCTAAAAT CAAAATAGGT TTTTGCCTTT TATGATTATA CAGTAAATAA
198301 ATGCTATTTG TGTGAAACTT TAAACAATAC AAAAAAACC TAAGGAAGAA AGTCAGATTC
198361 ATCTAAAAAT CCTTGTGGCC AGAATTAACT ACCTTAGTTA CTATTTTCTC TATCTCTCTC
198421 TCTCAATGTA TATTTGGTGT AGGTATAGGG GTGTGTGTAG TGTGTGTGTA TGTATATATC
198481 TGTTTCTATT CCTGTATGTG GATGTGCACA ACGCATCCTG CTTTGTACAC TACATGACTA
198541 GCATTTTTCT AATGTAATTC AATATTGTTG AAAACATTTT AAAAAAGCTT GTATATATAC
198601 ACACACATAC ACATACATGC ATGTATGTAC ATATACACAT ACAGACAAAA ATGTATCCTA
198661 TGTATATTCA CACATGTATA CACACTCACA CATACATAGA GTTTTACATC CATAGTTTAT
198721 AAATGTTGCT TTTTTTGGT CACCTTTTTG CTAAGTCTTA CACTTTTTTT TTTTTTTTTT
198781 GAGACGGAGT TTTGTTGTCA TTGCCAGGC TTAGTGCAGT AGCGCGATCT CACCTCACTG
198841 CAACCTCGAC CTCCCGGGTT CAAGCGGTTT TCCTGCCTTA GCCTCCTGAG TAGCTGGTAC
198901 TACAGGTGTG CGCCACCATG CCTGGCTAAT TTTTGTAGTT TTTTATAGA GACGAGGTTT
198961 CACCATGTTG GCCAAGCTGG TCTGGAATC CTGACCTCAA GTGATCTGCC TGCCTCAGAT
199021 TCCCAAAGTT CTGGGATTAC AGATGTGAGC CACTGCACCC GGCCAAGTCT TACACATCTT
199081 TTTTTTACCA CTAACTGTT TACCCAAACC TGATAACCCA AGTCAACAGC TATTATGGCT
199141 CACACAATCT TATGTAAACA AAGATACAGA TATATAGAAT TTTCTTGATT AATATTGAGA
199201 AAAAAATGGA GTCCCTTTAT ACGTCCTTAG TATCTGCTTT ACTCATTTAA AAATGTATTA
199261 CATTATATGA AAGTATTCAG GTCAAATGTT ATAGATGTGA TTCATTCTTT TTAAGTGTGT
199321 TATTTTTCTG CAATGACTAT GTATCACAAA GTACTCAGTC TTCCACTGAT GAAAATTTGG
199381 GCTATTTCCA GTTTGTCTTC CATTTTTCTT TCTTCTCTT GGATTTTTCAC TCAATGTGTT
199441 TACTAATTTA GGAAGAATCA ATAGTTTTTA TGGTATTACT TCTCCCATTC AAGAATATAG
199501 CATATGGTAT AGTATAGTAG AGTACTTAGT TTAATTTAGC CAGATCCTGT TTTCTGCCCT
199561 TTAATAAAAT TCTATCATTT TCTGCCTTTG AGTCACATTT TCCTTGTTCA TATAATTCTT
199621 AAAAAATGTA TAGTTTTTAT TCTAAGGGAA CATAAAAACT TCTTTCCATT TCTATTCCTG
199681 TCTAGTTAAT TCTACTATTG GGAAAAGTAA CTGTTAAAAA AAATTCTTAT CTTTCCAGTC
199741 AGTTCACCAC ATTTCTTTTA TACCTTTGTA CTTTAATCCC CAGTCATGTT GAACACTTCT
199801 TATTCCTCAC ACCAAGCCTC AACGGGTTTG CTCTTTCTGG AAGGTGCTTC CCCTGTATTA
199861 CTGACTTATT CATACCACAC ATGGAGACTG GCGCAGCCCT GTTCTGCCTG GGAAGCCTTC
199921 CCCTGATACC CCCAGTTGGC AGGAGTCTTC ATTTGTTCTT TTCTAGTCAC CTGTGCAAGT
199981 TTGTATTGTT CATGTTTATC ATCCTTCATT CTAGTTGTCT GTCTCTGTGT GTGGTCTCAT
200041 TCAGTGGACT CTGAACTCTT ATGAAGTCAT GTCATGGGTC AGATCTTAAT AAATTAATAT
200101 TGTCGGAAGC TAATGTCATG TCTAGAATAC AGAAAATTTA TCAAAAAAAA ATATAGTATG
200161 TTGGCTGGGC GCAGTGGATC AAGCCCGTAA TCCCAGCACT TTGGGAGGCC GAGGCAGGAG
200221 GATCACATGA GGTCAGAAAT TCAAGACCAG CCTGGCCAAA ATGGTGAAAC CTCATCTCTA
200281 CTAAAAATAC AAAAAGTAGC CAGGCGTGGT GGTGCCCACC TGTAATCCCA GCTACTCAGG
200341 AGGCTGAAGC GGGAGGATCA CTTGAACCTG GGAGGCAGAG ATTGCAATGA GCTGAGATCA
200401 TGCCACTGCA CTCCAGCCTG GCGACAGTG AGACTCCATC TCAAAATAAT AATAATAATA
200461 ATAATAATAA TAATAATAAT AATTGTATGG AATTGAACTG CTCTGATTGG AAATAGCTGT
200521 TTTTTAAAAA ATTATTATTT TTTAAGTTCC TGGGTACAAG TACAGGATGT GCAGGTTTGT
200581 TACATAGGTA AACGTGTGCC ATGGTGATTT GCTGCACCTA TCAACCCATC ACCTAGGTAT
200641 TAAGTACAGC ATGCATTAGC TCTTTTACCT AATGTTCTCC CACACCCCCA CCCCATCCTC
200701 CCCAACAGG CCCAGTGAG TGTGTTTCCC CTCCCTGTGT CCACATGTTT TCATTGTTCA
200761 GCTCCCACTC ATAAGTGAGA ACATGAGGTG TTTGGTTTTT TGTTCTGCC TTAGCTGTTA
200821 ATGTCAGGCC AGAGAGGCTT AAATTTTTAA GGATCTCTGG ACTTTTCTTC TACATTACTC

```

Figure 8 (Page 62 of 73)

78/162

200881 TTGATGTTTA TAAATGTTAC AACTTCTTTA ATTTTCATTTA ATGTATACCT TATTGAGTTG
200941 ATTTAACTGA GTTAACTTTG TTATATGAAA ATCATGATTG GGAGTGAGGG GGTTAAACCA
201001 GCTACAGAGA TCTTGATTGT TGGTGGTGAA GCAATGCAAG AATTCATTCA TTCAGTAAAC
201061 TAATGTTTAT TAAGCGTGTA CTGTCTTAGT CTGTTCAGAC TGCTGTAAACA AAATATCATA
201121 AACTGGGTGA CTTATAAACA ACAAAAATT TATTTCTTAC AGTTCTGGAG GTGGGAAGTC
201181 TAAGATTAAG GCCCTGGCAA ATTTAGTGTC TGGTGAGGAC AGGTAGCCAT CTTTTTGCTG
201241 AGTCCTAACA TGGCAGAAAG GTTGAATAAA CTTCTTGGG TTTCTTTTAT AAGGACACTA
201301 ATCCTAGTGA TGAGGTTTCT GCCCTCATGG TATAACTACT GCCCAAAGAC CCCTCCTTCT
201361 AATATTATCA CTTTGTGGGT TAGGATTTCA ACATGAGTTT TGAGAGGATA CAGACATTTG
201421 GATCATAGCA CACACCATAG GACAGACACT GTGCCAAGAA TTGTGGATAT AGTGATTCTC
201481 AAAATGAACA AGATCCCCCTC AGAGAGCTTG CAAAATCCAG CTATAAAATT ATGCTTTTTA
201541 AACAAATTAT GCAGTTTGAA AAATCTACTC TGAATCTTAC TTGTGGCATT GAATACTTTC
201601 GGCCACTCTT TCCTTATTAT ATTAAATATT TACTCTTGTT TGGGGGATCC AGTCTCACCT
201661 ACTTTTTCTA CCAGAACTGG TATCAGCTCA TGCTCTGCCT TATGCAAATT AAGAAAATAT
201721 CATACCTTTT GGGTAAATTA ATCCAAGAAA GTTCTCCTTT CTCTCTTTC TCTCTTCTT
201781 TCTTTCTCTC TTTCTCTTTC TTCTTTCTC TCTCTCTCTT TCTTTCTTTC TTTCTTCTT
201841 TCTTTCTTTC TTTCTTTCTT TTTCTTTCTG ACAGGGTCTT GCTCTATTGC CTAGGCTGGA
201901 GTGCAGTGGT GCAATCTCAG CTCACTGCAG CCTTGAAGTC CAGGGCTCAA GCAATCCTCC
201961 TGAGTAGCTG GGACTATAGG CATGTGCCAC AACATCAAGC TAATTTTTCG ATTTTTCGTT
202021 GGAGACGGGA TCTCCCTATG TTGCTAAGGC TGGTCTTGGA TTCCTGGGCT TATGCGATT
202081 TCCTGCCTCA GCCTCCCAAA GTCCTGGGAT TACAGGCATG AGCCACTGCC CCTGGCCATT
202141 ATAACATTTT TCATTGGCTT ATCAGGCACA TGATAACTAT AATAAATCAA TAACCAGAAT
202201 TTTTAAATAA AGAAAGGAAG GAATTGTTTC AACTCTTCCT GCTACCCCTC TATCCCTCAA
202261 AAGGGTAGGC TGAATGTTGT CCTCCAAAGA TATCCATGTC CTAATCCCCA GAACCTGTAA
202321 ATATATTACC TTATATGACA AAAGGGACTT TACATGTTTA ATAAGTTAAG AATTTTGAGA
202381 TGGGCAGATT TTCCTGAATT TTGCAGATGG GCCCTAGTGT AATCACAAGG GTCCTTATAA
202441 GAGACAGGCA GAAGAGTCAG AATAAGAGAA AAATACTTCA AGATGTTACA CTGCTGGCTT
202501 TAAGGTGGAG GAAAGGCCAA GAGCCAAAAA ATGCAGTGGT CACTACAAGC TGAAAAAGAA
202561 AAGAAATGGA TTTTCCCCTA AAGCCTCTGG AGGGGGCACA ACCTTGCCAA TACCTTGATT
202621 TTGGCTCAGT GAAACCCATT TTGGACTTCT GACCTTTAGA ATTGTAAATA AATAAATAAT
202681 TTTGTGTTGT TTCAAGCCAT CACAGTTGTG GTAATTTACT ACAACAGCAA TAAAAATAGAA
202741 TTAAATACAG AGATCTGAGG AGTTGAGTAG GATAAGCCTA CTCCAGCAGG TTATTTTCGGG
202801 AGTATGGTGA GACTCACTAG GATGGCGGAA CTCAATTAAG GAAGTCTGAA GCTGATAAGC
202861 CAGAGAGGGA AGGCTCTCAT TTCATTTTAT AAGGGTTGCG TCACACTAGG AAGATCCAAT
202921 AGCAACCACA GTCTCAAAAT TAATGATTAC AAATAGGACA CAATTCCAAG AGTCGGGAGC
202981 CAAGCAGAAA ATGGATTAGG GAAGACATGG ATGATATGAA ACAGGAAGGA GGGGTACAAG
203041 GCAGCTTCCT GGGAAAGTTGC CAGGGCAGTC ACAGTTCACA TTCATTAGGC TGTGGGCACC
203101 AAATGCATAT GGAAAATCTA GCTGACTTAA CTGAACTCCT GAAGAGGAAT GAACACCTCA
203161 TTTATTGAGG AGCTACTACC AATTAGAATA TGTATTTTCAT TTGTTCAATA ACCCATGAG
203221 TACAGTAACA CAATCCTTGC TTTACTAAAG CGGAAGCCAA TTCAAAGAGG TTCAGTGACT
203281 TGTCCAAGCT CAGGGAAAAAC ACTAGGAAGT GAATATGGGT CTGACTCCAT CACTGATTTT
203341 AGGAGCCCTG CCCTTTTCTC CACACCATGC CCCCTTGCTT TCAGAAAAAA AGGCTTGTTG
203401 ACTGAATGGT TGTATGCACA GTTCAAAGCA GAAACACACG ATGACATCTT TTGAGATACT
203461 CTAACAGTGA GAACTTGAAA ATGAAGTTAA AAATTAAGCG GCAAAACCAA GCCGAGGCTT
203521 TCTGAGAAAAG TGGGGCCAAA CCTGTTGCCG TCTGACTGCC ACGTGGCTCA CTATTTATCC
203581 CTGTAAAAAT CTGCAAAAGT ATTTGAAAGG GAAGAAGGGA CAGAAAACTC CCTCCTTTTC
203641 CAAGTTAGCC TTATAGTCTA GGGCTTAAAA TACTGGTTTA ATGGTGAAGG TAAGTGCTTT
203701 TCTTCTTTTT GGGTAGAAGG ATTATTACTA ACTTACCAAA GGTCCATTAA GGGGAGGGAA
203761 CAGTTTTAGG AGAAGTCAGA GAAAAGACAT TAACAGCAAC ATAAGGATCT CCATCTGGTA
203821 ATATTGCCTA ATTCAAAAAT GAAGAGACTC TCTGAAAAAG ATAACGTGATT CAATGAAGAC
203881 CCTAGGGCAA GGCTTGAGAA GCCACTGGTA CCAATGGACA CTGTGGACAA TGGTCATTTT
203941 TCCAAGGACG CTGTGAGTAT TAACTGTGAT GCTGTGATTA GTCAGACTGG GATTGGCTGT
204001 GGAATGAAAT ACTGATCAGA ACTGACAAGA TTTGTGTTTG GGACTGTGGC TAACGAGTCT
204061 TTTCAGACTT CTATATGAAT TTGAAATGGT CTCTCAGGAA AAGGAGAACA TGGCCGGGCC

Figure 8 (Page 63 of 73)

79/162

```

204121 TGGTGGCTCA CGCCTGTAAT CCCAGCACTT TGGCAGGCTG AGGCGGGCAG ATCACTTGAG
204181 GTCAGGAGTT TGAGACCAGC CTGGCCAACA TGGTGAAACC CTGTCTCCAC TAAAAATACA
204241 AAAATTAGCA GGGCGTAGCG GCGCGTGCAC CTATGCGCAT GCATAGTGCG CGTGCCAGCT
204301 ATTCAGAAGG CTGAGGCAGG AGAATTGCTT GAACCCAGGA CGTAGAGGTT GCAGTAGTTG
204361 AGATCATACC ACTGCACTCC AGCCTAGGTG ACAGAGTAAG ACTCTGTCTC AAAAAATATA
204421 TAATAATAAA AGAAAAGGAG AACATGACCA AAGTTATGAA TAAGACTGAA GGCAAGAAAA
204481 TTGTACGCTT GTAGAGATCA CCTAGCTTGT TGCCCTCATT GTACAGCTAA GAAAAGGCAC
204541 CCAGGGACAT TGTGGTCAGC ACCAATTTCT CAGAAAGATA GGCAGATGAT GAGAGGGCCC
204601 TCAGTTTTTC TAACACTGAA GGAATTGCTT CTATGTTTTT TGGTGAACTC CTCCCCACTC
204661 ATCTTGAGGA TTCCAGGCCA GAAGAATCCA CTTTAAAAAA GAAACATTTA AAACCAATTT
204721 AACAACCAAT CAAAGGCACT TTTATAGAAA TACATTTTCAT TTGCTGTAGG CCTGTATTTA
204781 TGGACTCTGAG AGGGCTAGAC TGCCAATATT GTGACTGTTT ATTATTATTG CTGTTGCTAG
204841 TATCTAGAAT ATTATACAAC ATATAACACT TTGCAATTTA CGAGGCATGT CTCATACTTT
204901 TGTTTTTCACT CCAACTGCC CAGTGAAGTA ACATTATCCC AATTCTTCCT ATGAAACAGT
204961 GAAAGCCCTA AGAGTTTTTG AAACCTTTACC TGGTTTTACTC AATTTGGGAA TGGCAGAGCA
205021 GAATTCAGTC CTTGAATATC CTCCCCTGCG AGGTTTCATGC TCTTTGATCT AGGTGTAACA
205081 TTTACTCTGA GTAAACTAGG ACTCTGGGCT AACAGAGATG AAGCAAGACA GGCTGGATAT
205141 TAGGAGAATC TAAGAGCAAT CTAACGACCA TTATAATAAA ATCATGAGTT CTAGACTTAA
205201 AAAAAGGGAA AAACCTGTTT TTTTGCTTAT GCGTATACCA TAATATTTAC ATTATTTATT
205261 TTTTTCTCAA ATTCAACCTA TACTGTGTCA AGTAATTTTT TTTAATATAA CATTTTCCTT
205321 TAACTTAATT TCAATTCAAT TTTCTGTGTC TACTTACAAC TTTGGCACTA GAATTCACAA
205381 TTTTTTTTTT GAGGTATATC TCCTTAAAGG GAAGGGTTCT GACACTGTTA CATGTTCTCA
205441 ATTGTTTGCA AATAGGTTAA TAATTATTCC AGTGTCTCTA AGTACATATC AACCATGCCA
205501 GTGTTTCAGC TCCATAATTT TATTAGCTTC TGTGCTTATT TTGGAAAAAC ATTTCCCATT
205561 ACCATGAAAG ACCTCAGTTT AGGATGGTTT GGTATGTTAG CCTGATTTCT GCATTCGTCT
205621 CATGCAAAGG AAAATAGGAA ACGAAGAACT GAAATTACCT ATTGATACAA AATCAAAGTA
205681 GCATTTGAAA CCATAAACT TAAGTAGGGC TTTTCATCCT TTCTCGTTAG ACAGCAACAG
205741 AGAATGGGAA GAAAACTAA AGTGATGGGT TTGTGATACA ATTCCAGTAA CATAAAGAGC
205801 AAGGAGAAGT AGTTTTGTTG TGTTTATGTT TAATATTCAA AGCTCAACCT AAAAGTATTT
205861 TTCATTATCA AACTTCCTTC TAGAATAAAT GATTAAAACT TGATTTAAAA TATACAAATT
205921 CTCCTTTATA ATACCTCAAA ATGGAGCTAC CCCATTGAGT TTTAAGCTTG TGATTAATAA
205981 ATTACGAAAA CAAAGGGGAA GTTGTAATAG GTAGAACAAG CAGTAGTCTA GGCATTAGGG
206041 GATCTGGTGC TGGCTCTGTG CATCATGTGG TTTCAGGCAA CTTTTCAAAT TTTCTACGCA
206101 AATTTTCTTA TCAATAAAAT AAACAGTTGG GCCAGAGGAT CTCTGAGTCT CTTTCAGCTT
206161 TCAGTGTTTA TAAGATTGGA GAAGTTGGTG GGAAAGCTTT AAGTGGAGTG TAAGTAATTG
206221 CAGCTGCATG TACAGTTAAA GAGTTGCCTT CAGCCAAGCC ACGGGATCTT GCATAAAAAG
206281 TGAAATCAAA TAGAAAATGG TCCAACTCT GGGTTTGACC ACAGATGACT TCAGCTAGGA
206341 TCTGAGTGTA GAGCAATGAG CTGAACCTCT GATATCCAGA TGTTAGCAAG ACTTGGAGGC
206401 CTTCTAAGGC AGAGCAACAA CCAGTATCTG TCCTGGTGCT GACCTGATCT TACTAGCAAT
206461 TGGGCCTCCA TTTGGGTCCA TTGTACAAAA CAACAACAAC AACAACAATA AAATCTCCAA
206521 ACACCCAAAA TTCAAAATTT AGATGGAGAG ATACTATTCC CAGAATTCTA GAGATATTTG
206581 GAAAGCAGAA AACTATACTT GCCATGCTGA TGAAGTCCAA TTATTGCTCT TTTAAATACA
206641 TTTAGCTACT TCTGAATATA AAATGAGTAT CTACTAATTA TTTACAAAAT CACTTGGTAA
206701 ATATAGAAAG TCACAAAGAA TGAAGTGATC ATCCTGTTTT GTAACCCAGA AATAGTCATT
206761 ACTGGCACTT GTGTGAATCA GTTTCTATTC CTGTATGTGG ATGTGCACAG CGTATCCTGC
206821 TTTGTACACT AGAGTACTAG CATTTTTCTA ATGTAATTCA ATATTGTCGA AAACATTTTA
206881 AAATAGCTTC CATCACAATA ATCTATCAAA TTGACTTGCC AGACTCTCAT TATTAGGTTA
206941 ATTTATCTCT AACATTATGC AGTCATGAGT AATACTACAA AGGATATTTT TGGACACAAT
207001 TTTTCATCTA TGCCTTTCTT TATAATCCTT CATCCTAAGG TCACAGATTA TGAATATCTT
207061 TAAAGTACGG ACAAGTCTTT TAAATTTTGT GTGCAAAAAC AGTGCAAAGC CTTGAATGAT
207121 AAAATAGAGG TTTGATATAT GTGTTTTTTT GTTTGTTTGT TTTGAGACGG ATTCCTGCTC
207181 TGTCCCCCAA GCTGTAGTGC AGTGGCACGA TCTTGGCTCA CTGCAACCTT TGCCTCTTGG
207241 GTTCAAGCAA TTATCCTGCC TCAGCCTCCT TAGTAGCAGG GTCTACAGGC ATGTGCCACC
207301 ACACCCGGCT GTTTTTGTAT TTTTAGTAGA GATGGGGTTT CACCATGTTG GCCAGGATGA

```

Figure 8 (Page 64 of 73)

80/162

207361	TCTCGAACAC	CTGACCTCAA	GTGATCCACC	CACCTCAGTC	TCCCAAAGTG	CTGGGATTAC
207421	AGGTGTGAGC	CACTGCACCC	GGCCGATACA	TGTGTTTTTA	AAGTCACAGA	AATTTTCAGAT
207481	GTCTTGAAGG	ATTTTAAGCA	ATTTAAAAAA	TAAAGTCATA	GAAGCTTCAA	TTTAGGAATG
207541	AATGGAAAAT	TGATGATATT	CTTAGGATAT	GGATTTTTCC	TAAAAGAAAC	AAATGTATGC
207601	ATCCCCAAAG	ATAATTTGAT	TAGTATACAA	ATATTAAATT	AAACATGTCC	ATATTTAGAG
207661	CCATGAATTC	TCTTTGCCCTG	TCACAATAGC	TGGATTTTAT	CACAATTGTA	GTAATTAGTC
207721	CCTGTTTCATT	ATAATTTTCT	AGGTGATATG	AAGACTTTGT	CAGTCCAAGC	AAGTGTCCAC
207781	ATTGTGTGTA	GCAAACATGA	GAATAAACAT	TTTAAACTTT	TAAATGTAAT	ACATATTAGT
207841	GTTATGTAAT	GTCATCCTTC	ATGTTTCGAAG	GCACATGGAA	CATTGTTCTG	GTGGTACAGA
207901	GGGGAGAGAA	ACACCATCAG	AATGAAAGGA	AAGACCGCTC	TGGAACCTTC	CTCCTTAGCT
207961	CTTGAGCTTA	GTTTAAATTGT	CCTGTCTTAT	GGTCTGCTAC	AAGCAATACC	ACTCTTCACC
208021	TTCGCTATGCT	TCTCTGTGGT	TTGATAAAGT	ACATGCAATT	TTTCATTTAA	TTCTTCCAGC
208081	TGCACATAAG	AAGGAGCCTT	ATCTTTATTG	AACAGATGAG	GAAATGAATG	ATTAGAGAAT
208141	TTAAATGACT	AGCTCTAGGT	CACACAGCTG	GAACCTTACAG	CCAGATTTCC	TTTTAACAAAT
208201	CCTGTAACCA	AAAGCATACC	AGTAGTGCCC	CATAAAATGT	AAGTTATAGA	GCTGTGTTGG
208261	GTCAAAACCTT	TTACTGATGC	TAAGAGGAGG	CAACATTAAC	AAGGGGAAAT	TATTTGTGTA
208321	TTATGTTTTG	GATTATGTTT	TCTCCATAGA	TAAAAGACTG	TCGTAGTAAA	AGAGATTACG
208381	GGCACAGGGA	AACTCCACCA	CAAAGCGTGG	TACCATTTC	CACAGAAGCT	AAATGGACGG
208441	GAAGCCTGCC	ACCAGGAAAG	GTAAAGCCAC	TGCTCTTGTT	TGCAGGCTAT	GTTAATAAGC
208501	TGAAGCTTAT	TCCGACACAT	TTACACATCT	CTGCATCACA	CTGACCCCTC	GTAAAGATAC
208561	TCCCAGTGTA	ACATTGGAGC	CAGCTCCAGC	CCCTGATCCT	GTTGCTTTTT	CCTTAGCCCC
208621	ATGAAATCAT	CTGTGAGAAA	TTAAGCCAAA	TAAGCAATAA	ATCCTGGGAT	CTAGGGAGTG
208681	GAATAAGTTT	TGGGAAAGTC	TTTTTTTTTT	TTTTTTTTGA	CTGAGTCTTG	CTCTGTCTCA
208741	CAGGCTGGAG	TGCAGTGGTG	CGATCTCGGC	TCACTGCAAC	CTCTGCCCTC	CGGGTTCAAG
208801	TGATTCTCCT	GCCTCAGCCT	CCCGAGTAGC	TTGGACTACA	GGCACACACC	ACCATGCCCA
208861	GATGAATTTT	TGTATTTTTA	GTAGAGATGG	AGTTTCGCCG	TGTTAGCCAG	GATGGTCTCG
208921	ATCTCCTGAC	CTCGTGATCC	ACCGGCCTCG	GCCTCCCAAA	GTGCTGGGAT	TACAGGCATG
208981	GGCCACCACG	CCTGGCCCCG	GAAAGTCATT	TTAAACCAAC	CTATGTATGA	ATCCCTACTA
209041	TAATATTCTC	ACCAAGCGGC	TGGCTCTTTC	TCCTGAGCTT	GGAAACCTCC	AGTAAATGG
209101	AAATAATTAT	TTCCCAGACC	ACCACTCTTA	TCTGTGAGCT	TTTTTTGGCCA	TTAAAAATTA
209161	TTTCTTCCAT	TATATTTTTA	TCTGTGTCTT	CACAGGTTTT	CTCTTTCTTT	CACTTTAGTG
209221	CTTTTCTTCA	AATAAGCAGG	AAAAATCCAA	TCTATCATGC	ACATGGGAAC	CCTTTCAATA
209281	TTGGTCTGTG	GTTGTTCCAT	TTTATGGGGA	TGCTTTTAAA	GAAAAAATTT	GTCTTTTCAA
209341	TATATTGAAT	ATCTTCCAGC	ACCACATCAC	CTGCAAGCTT	TGTAAAAATA	GTTCTACATA
209401	TTAAATTTTT	TTTTTTTTTT	GAGATTGAGT	CTCATTCTGT	CACCCAGGCT	GGAGTACAGT
209461	GACATGATCT	TGGCTCATTG	CAACCTCTGC	CTCCTGGGTT	CAAGTGATTC	TCCTGACTCA
209521	GCCTCCCGAG	TAGCTGGGAT	TACAGGCATG	CATCACCATG	CCTGGGTAAT	TTTTGTATTT
209581	TTAGTAGAGA	TGGGGTTTCA	CCATGTTGAC	CAGGCTGGTC	TCAAACCTCT	GACCTCAAGT
209641	GATCCACCTG	CCTTAGCCTC	CCAAAATGCT	GGGACTACAG	GCGTGAGCCA	CTGCACCCCA
209701	CGTAGTTTTT	TTTTTTTTTT	AAGTTGAACA	TATGTGAAGG	CAGGACCTAG	TGACACATAG
209761	CAATAACATT	TCCAAGTAGA	CATTACACTA	GGGAATTAGT	CGAAGTGCTC	ATTTAAAGTA
209821	CCATCTCTCA	AATGTATTAA	AAGAGAATCC	TTGGATGTGC	AATACCTTAA	TTCAAAGGCA
209881	GCTCGTTATG	TATAAACTCT	CAAGCTTTGT	GATAAACAAA	TGTGCATAAC	AGATGGGACT
209941	ATTCACCTAC	AGCCCAGGGA	ATTTTATTGA	CGCTGAGAAG	GTTATGTGAC	TGGCTCTGCC
210001	ACTGTCATCC	CCATTCACCT	CATTTTGGAG	CAATATGACA	TAAATGCCCTT	ACATGTGGGT
210061	TTTCTCTATT	TATCATGTGT	TTCCTATCCC	CTTGAAAGAT	GGCCATATTT	GCTTTACTTG
210121	GTTATAAGAT	CCCATATTCC	CTGCTTTGAA	GCCAACCAAA	TAATTTGACA	AAGTGGGTTT
210181	GTAGTGCTGG	CTATTTTGGT	GAAAAAAGA	CAATGAGACT	TCATGTGTCA	TCCAAAGTTC
210241	TATCAGATCG	AGCTGTGAGA	GAAAGGAAAA	GAAAGGGGTC	TCAGTCAGGA	TGCTCACTAC
210301	ATACATCTGT	GTTGTTGTCT	AGGTCCAGAT	TTCTGTTTCAT	TACGCTATGG	GCTGGCTCTT
210361	ATCATGCACT	TCTCAAACCT	CACCATGATA	ACGCAGCGTG	TGAGTCTGAG	CATTGCGATC
210421	ATCGCCATGG	TGAACACCAC	TCAGCAGCAA	GGTCTATCTA	ATGCCCTCCAC	TGAGGGGCCCT
210481	GTTGCAGATG	CCTTCAATAA	CTCCAGCATA	TCCATCAAGG	AATTTGATAC	AAAGGTAAGT
210541	ATGATGGAAA	ATAGGGCTCT	TTGTTGAGAG	AAAAAACTTT	GAAAGGAAGG	CATAGATCTT

Figure 8 (Page 65 of 73)

81/162

```

210601 GATTCTGTGG AGTATGGAAG TATACATTTT CAATGACAAA TTAAACTGA CTGGAACATAT
210661 TTTTCTTTGA GACATTGCTT ACTTCAATAA TAAAAATAAG ATTTCAATTGA GGTTATTATG
210721 ATTATAAGGT GGGGGAACGT TAGAGTTAAA TGTGAAAAAT TTAAAAATGG AACAGTTTAT
210781 GTGATGTCTT CAATGAAAAA CTAGGTATTA CCTGGGCACA TTCTTATAGG TTACTCAATC
210841 CTATTCAGTT CTCTGCCTGT TTTATTGTTT CTGAGCAATT TTATATCCCT GTAAATTCTA
210901 TATAACCAAT AGAAATGCAA ACGATTCTTG TCCATAGCTT TGCAAATAAA TTTTGCCAAG
210961 AGAAAAATCA GTTAAAACTT TTCTCCACTC ACCTCCCAGT TGAATTAGCC AATTTTGCTG
211021 TTTGTTTGTT TGTGTTGTTT TTGAGATAGA GTCTTCCTCT GTCATTGAGG CTGGAGTGCA
211081 GTGGCATGAT CTCAGCTCAC TGCAGCTCC GCCTCCCGGG TTCAAGAGAT TTTCTGTCT
211141 CGGCCTCCCA AGTAGCTGGG AGTAAGGGGG CATGCCACCG CGGCTGGCTA ATTTTGTAT
211201 TTTTAGTAGA GACAGGGTTT CACTAGGCTG GTCTCGAACT CCTGACCTCA GGTGATCCAC
211261 CCGCCTCGGC CTCCCAAAGT GTTGGGATTA CAGGTGTGAG CCACTGTGCC AGGCTCTGCT
211321 GTATATTTAA AGTCTATTTT AGCATTGCTT CCTGCTTGTTG TTATGCGTGA TTCTTTGAGT
211381 TTTCTTTTGA ACCAGTTATA ACATCTTACT TACTTCCTCC ATTAATCAAT GAGTTAAATA
211441 AAATCTTTGT TGTATGTTTA TTTTACATTT ATATGAAAAC CATGAATTTA CCCAATTAAA
211501 AAAATTATCC TTTAAATTAT CTTGTACTGT ACATTTCCCA TGTCATCCCT ATAATTCATG
211561 ATTAATGATT TTATTACATT GGACCTAGCT TATTTACAAT GAGTACATAA ATTTATTGTC
211621 TCCAGTCTTT CCTCCATTAT CCCGTCTACA TATCCACACT GAGTAGATTC ACTACTCAGG
211681 AATCTTGGAC ACCTTCAAGT TGCCAAACAT GCAGTGTTCA CTGGACATGC TGTGTTCTTT
211741 CAGAATTTGG GCCTGCTTCT CAGCACACTC ACATCTGCTA TCAATGACCC ATGGAAAGTT
211801 TTTGCCCTGA GCAAGCCAGA GTCCCTGTTA GTTTCTTCCA AATGCTACAA GTTCACTTTT
211861 GCTATTTTTT CCGATGAGAT AAAATTTTCC TTTTGTACTT TCTACAAATC ATAGTCATTT
211921 TTCAAGGGAT AGTTCAAGTA TTGCTTCCTT TCTGGGACCT TCCCAAATTA TTATTTCTC
211981 CTCTCAAAGT CTCTGTTTTA TTTATGTTCA TCCTCAAATC TTGATTCTCA CATGAATCAT
212041 ATACCTTGTA TTATTTATAG TTTTTTTGAG TGGGTAAAAT ATTTCATATT TTATATTCTT
212101 TGGCTCTCTA CTTTATAGCA TGATGCCAGA TATTTAGGGG CTTATTGCA TTTATTTTTT
212161 ATTTTATTTT AAAATCTATT TTATTTTTTA TTTATTTATT TTAAATCTA TTTATTTTTA
212221 GGTAATATT CAGGTAATAT AATTTATGTA ATTATTTAGG AATTTTAGGT AGTTATTTTA
212281 AAATAATTCA AATTATTTAT TGAGTTATAT CAGAAGAATG TGATCTTATT CATTTGTAAT
212341 ATGTGTTTTA GGAACCTCAGT TCAGCCAGGG CAGACCATGA TTCCCAAAC TGACTTTTCT
212401 TTTTAATTAG GCACTGATTT TGGTTAAGAG TTCAGTAAAG TTTTGTGTGT GTGTTTTAAA
212461 AAATCTTTTG ATATAAGAGT CAAGATGTTA CTCAACTTTT ACTAGAAGCA AAATAGAGGA
212521 AGTGCTTTCA CAGATGAAAT ATCTCTCAAT GTTTTCTTCC ATTTACTTCT TCCTATTATT
212581 CATCTATATA ATCATTTTCT TTACCTCTTT TCTTCATTTT TTCTGTTTTT CTCTCCTTCT
212641 ACTAAGACAA GCAAATTAGG GGTATAATTG GTTATTTGGG AAGGTAGGAA GAATATAGAG
212701 AGAAACAAAA ATCAATATTT TATACTAGGG TCTCACTAAC CTCAAGCAAC TCTGACTGTA
212761 AAGTAGATTT TCATAATAGG ACTTCTTGAC AAAGAGTTTT CCTATTTTTT CCCCAGGCCT
212821 CTGTGTATCA ATGGAGCCCA GAAACTCAGG GTATCATCTT TAGCTCCATC AACTATGGGA
212881 TAATACTGAC TCTGATCCCA AGTGGATATT TAGCAGGGAT ATTTGGAGCA AAAAAAATGC
212941 TTGGTGCTGG TTTGCTGATC TCTTCCCTTC TCACCCTCTT TACACCACTG GCTGCTGACT
213001 TCGGAGTGAT TTTGGTCATC ATGGTTCGGA CAGTCCAGGG CTTGGCCCAG GTATCCAGAT
213061 ACTTTCTCAT TCTTGGTGGG ATCCAGATTT CTGAATTCTA CAAAATATCA AAGGTCTTAA
213121 TGATTTTCAT TTCAGGGAAT GGCATGGACA GGTCAGTTTA CTATTTGGGC AAAGTGGGCT
213181 CCTCCACTTG AACGAAGCAA GCTCACCACC ATTGCAGGAT CAGGTAAGTG TGCACAGATG
213241 GGTCCATAGCT TTGTCATCTG TTCCATCCCA CTGTGTCTTA TCTTCTATGA ATCAAATGGT
213301 TTGGGGAAGA GAGAGAAAAA GTACTGCTGA AAAATTCAAC AATATAAGAC ACTTGCATCA
213361 CAAATAGGAA AGATGCATCT GTGCAGTAAA GACATTGAAG CTTAGAAGTA GAAAAACCA
213421 TTGTGAGCTA GGTTTCAGCT CAGAAAAGCC TTAGTAGTCA GAAAAGCCTT AGTAGTCAGA
213481 AAAGCCTTGT CGGAAAAAGT TTAAACCTTT AAGAATTGCA CACATGGAAA AAGATCAAGT
213541 AAGCTATATA TACACCATCT TAGCAATGAT TTTGAAGTGA GAATTAAGGC TACCACAGCT
213601 CCAGGTGGTA AGGAGAGAAA TCAGGCTGGA AGAGTTTGAA GTTTCTGTAT TATTCTAAGC
213661 TCTTTACTAT TCTATTATGA GCTCATTAAT TCTCACAACA ACCCTCTCAT ATAAGTACCA
213721 TTTTAAATTC TTATTTTACA GAGAAGGGAG TTAAGGAAGG TGGAGATTAA GAAAATTGCC
213781 CAAATACAAA TAGCCAGCAG GTGGTAGGTC TGAGATTTAA GCCCATGCAG ATTTTAGCCC

```

Figure 8 (Page 66 of 73)

82/162

213841	CAGAGCAGAC	ATTCTCAATC	ACTATGCTAG	ACTGCCTTTC	CATGGTATGT	GATCCTACTC
213901	AGGCCTCTAC	AGCTTTATCA	TTGCTGTTCT	CCCCAGCCTG	TCGTGCTGAG	AGTATATACT
213961	CGAAGAGCAG	AACTAAAAAT	CCATCCAGCT	TCTCACTCCT	AGGTCCACTA	CACAGCTGCA
214021	TCCTGCAGAC	TTTTACCTCA	AGCAACCCTC	CTGCGTTCTT	GCTTCCTTCC	ATCATAGTTG
214081	TAACCATCTC	CTCTATTTGC	AAATACTATC	TGCTGATCTC	TCTCTTCTAG	ACTGGTTTTCT
214141	TTCAACCTTC	TTCCCACCAA	AACCAAGTTA	GCTTGCTAAA	ATAAAGATGG	CACATTTTTTA
214201	CTCACCCGCT	TGAGAAATTT	CAATGTGTTT	CTTCATGCTT	ACAGAGTAAA	GCCTGACCTC
214261	TTTATTGCAT	GAATACAAAA	GTTCTTAGCC	ATCTGGCCCC	AACCTTGTTT	CACTCAACTC
214321	CCCTGTGCAA	GCATGGCTCC	AGTGGCACTG	GACATTGGCT	GCTCTCCACA	TAGATCTGCA
214381	CTGCACCTCC	CTCTGGCTCT	GCTCCCGTTA	GTTTATATGC	CTGGAAAGTT	CTTTGCCCCCT
214441	GTTCCCTGTG	CCAAAAATTC	ATCTATCCTA	TTGCATAGCT	TATGTAAAAA	CTTCCTAAAC
214501	CTTTTTTTTT	TTTTTTTTTT	TTTTTTTTTG	AGACGGTGTC	TCACTCTTTC	GCCCAGGCCG
214561	GACTGCAGTA	GCGCTATCTC	GGCTCACTGC	AAGCTCCGCC	TCCCGGGTTC	ACGCCATTTT
214621	CCTGCCTCAG	CCTCCCGAGT	AGCTGGGACT	ACAGGCGCCT	GCCACCATGA	CCGGCTAAAT
214681	TTTTGTATTT	TTAGTAGAGA	CGGGGTTTCA	AGCCAGGATG	GTCTCAATCT	CCTGACCTCG
214741	TGATCCGCCC	GCCTCGGCCCT	CCCAAAGTGC	TGGGATTACA	GGCGTGAGCC	ACCGCGCCCC
214801	GCCAAAACTT	CCTAAATCTT	ATAATTATTA	TCAATTTATC	CTCAGATATA	CTCCACGTA
214861	CATTGTAGTT	TTATTATATT	TATATTTTAC	ATCTTTTTTT	TCAAATTTCA	GTTTGGGACC
214921	CATTAGTGAG	TCATAAAATC	CATTGAGCGG	GTTAAAAATCA	TTATTTTAAA	AAATGAATAG
214981	AATAGAATAG	AAATTGTTGG	AGTGCATTGG	ACATGGTAAA	GTTAAATATC	GATTTCATGAA
215041	ACCATCGTTT	GAGGCATATG	TGTGTGGTTG	TATGTACAAG	TGTTTATGCA	TATTGGTGTG
215101	TGTGTTATGT	TACCCTGTAA	AATGCATTTT	TTACTATAGG	TCTCTGTGAA	ATATGTGTCT
215161	TGTTGTTTTT	TAATGTAGAC	TTCCAAAGCC	TACATGGCAT	TTCACTAGTG	ACAATCAATT
215221	TTATTCACAT	TTTTCTCTCC	AATTGGACCA	GAAGCTCTTT	GAGGGCAGGG	GCTGTATCTT
215281	ACCGATTTTT	GTAAGTCTTT	CATTTCTCTG	CCCTAGCCTC	ATATTAGATC	ATGCAAGAAT
215341	GCAACTGTAA	TCACAAGAAA	ATGCTAATGG	GCTGTGATAG	CAGAGAGTTA	CTGTGACAAA
215401	CTAAGGGATT	TAGATTGGGT	CACATTGGTG	TTGAGGAGCC	ATTGAAGAAT	CAGAGAGTGT
215461	GTTACTATTA	TTTGTTAATT	TTAATTATAT	CATATTACTT	TACTGGGGAA	AATCTGTGAG
215521	CTATTTTAGA	AATAAATACT	CTCATTGCC	AATAATTCTA	AGTCTGCCAC	CTCACTGTTG
215581	GGACATTGTT	TAGGGAGGCC	ACGAAGTCTC	AGCCTTTGAT	ATTTTCATAA	GTGTTTTTCT
215641	CCCTTTTTCC	TTTAGGGTCA	GCATTGGAT	CCTTCATCAT	CCTCTGTGTG	GGGGGACTAA
215701	TCTCACAGGC	CTTGAGCTGG	CCTTTTATCT	TCTACATCTT	TGGTGAGTCA	CTTTCTCTTA
215761	AATCCTAACG	CCTCCATTTT	CTGAGCATCC	ATTTTGACAC	CTACACCACC	CACATTCTTC
215821	CTATATGAAA	GAAAAATGCC	TTTATCAAAT	GGAAGATGAT	AAAAAATGTC	AACGGTTGGT
215881	ATCATTTTFA	ATCTAGTCAC	ACAACCTGAT	TAACACCTTC	CTGGTGGTTC	TGGGAAGCCA
215941	CACGCACAAG	GTAGAGGAGT	TGACTATTCA	CATGGCACCC	ACCGACTTGT	GATGCAGTCT
216001	TGTCCTTCCA	TATCAAGCAC	CTTCTGCAGA	ATCTCTACCA	CCACATCTGA	AGTGCCTGCT
216061	ATATGCAGTT	AAGATGTCAA	AGATAGTGAA	GTACATTTTC	AATGTGTCTT	CATATTTTCAT
216121	TATAATTATT	ATTTCTGTCC	AAGATGCCTT	TCACCTGTTT	TCTACCAAGT	TAATCTTGCA
216181	AAGTTCAATT	CAAAATGTCC	CTTCCCCATG	GGCCCTTCCA	GGGCTTACCC	TATCAGATTC
216241	TGGCATTCTC	TCCTTTATGA	TATTTCTCTT	CTAGGTTATG	TTGGTGTGTA	ATTATTTATT
216301	TCTCCTTTTC	TTTCCACTAG	ACTGTGAAAT	GCTTGAGGCA	AGGAATCCAT	TCTATGTTTT
216361	CATCACTTGG	GTGTCATCAT	GGTGCCTGAT	TTTTAGCTTT	AAAATAAAAG	AATCAGTGAA
216421	TCCAGTAATT	AGAGGGGATT	TAAAGAAAAC	TAGTCCTCAG	AATCTTTTAA	CATAGAATGT
216481	TCTTCAAATA	AGGAATTCCA	ATAATAAGAC	AATTTTCTAC	ACTTGATTTT	GTTTTTATAG
216541	CCAAATGGTG	TCATTAAATA	TAGTCCTGGC	CTGAATGGCT	TTCTCATTAA	TGATGCTAAT
216601	TATTTTGGTT	TGTACATGTT	AACCAGGTAT	TGTACAAAAA	TATTTCTTTT	GGGAATCCAT
216661	AATGGATGTA	TGGCTTGAAT	ACAAATAATA	CTGTCTCTTG	TAAGTGCAAT	GGAAATTTTT
216721	CCCTGCCACA	TGATTTCATG	GAAGGTTGTT	TCGTGTATGT	ATGACTGCAA	ACCTGACTAT
216781	TCAGATCTTC	CGCAACAAGA	CAACTTATGT	GTGCATTAAG	AAGTTGCTGC	CTAAATACA
216841	TAACACTGTA	ATCATTGGAG	ACTTTAAAGT	AATTAATCAG	CTATGCAATG	CCACGCTCCT
216901	GTTATCTCCA	GAGGGCTCTG	ACATTGACAA	ATGGTGGCTT	TCTATTTGAG	ACGTAATATC
216961	TAAAAAGCTT	TAACAGGTTT	GTAAGAAGAT	TGAAAGAAAG	AATGGGAACA	TTTAGGTCCT
217021	TATGGTAGAA	TAAGCATTA	TTGATTAGTG	TGTAGAAGGG	AGAGGCATGC	CACCTCAGAG

Figure 8 (Page 67 of 73)

83/162

217081	GAAACTTCCT	TCCCCCAGTA	AACAAATCTA	CCTAAAAACT	AATTTTATCC	CTTCTTCCCA
217141	GGTAGCACTG	GCTGTGTCTG	CTGTCTCCTA	TGGTTCACAG	TGATTTATGA	TGACCCCATG
217201	CATCACCCGT	GCATAAGTGT	TAGGGAAAAAG	GAGCACATCC	TGTCCTCACT	GGCTCAACAG
217261	GTACAGTGCA	CACCTTGTAC	CTGTGGCCCA	TGCAGAGGTC	TCTAGGGCAG	GGTGTGGATC
217321	TCCTCTGAGA	GGCACCATCT	TGGCTGCTCT	AATACTCATG	CTGATTAGAT	CTTTCTTTTC
217381	AGCCCAGTTC	TCCTGGACGA	GCTGTCCCCA	TAAAGGCGAT	GGTCACATGC	CTACCACTTT
217441	GGGCCATTTT	CCTGGGTTTT	TTCAGCCATT	TCTGGTTGTG	CACCATCATC	CTAACATACC
217501	TACCAACGTA	TATCAGTACT	CTGCTCCATG	TTAACATCAG	AGATGTGAGT	TTACTTCCTA
217561	TACTTCTACG	AAAATGATAA	TGGTAATAAG	GAGAAACAGT	TCTGTGTTAC	CTATTACATT
217621	CTGGCTTTTAC	ATATAACCAT	TAATTTAACC	TTCAACAATGA	CCTTGAGAGA	GGCATTGTTA
217681	TAATTCCCTT	TTACACAGATG	TGGAAACAGG	ACACTTAGAG	GTGAGATAAC	TTGCCCCAGG
217741	TTGCACAATA	CTAAGTGATA	GAGCTGCTGC	AGCATCCATA	TTCTTAACCA	CTATGCTATA
217801	CTACCACACC	AGCTGATTCC	AAAGCTTCTT	TTAGAAAATAA	TATTGCTGGG	CCAGGCATGG
217861	TGGCTCATGC	CTGTAATTCC	AGCACTTTGG	GAGGCCGAGG	CAGGCAGATC	ATGAGGCTCAG
217921	GAATGCAAGA	CCAGCCTGAC	CAATATGGTT	TACTAAATAT	CATCTACTAA	AAATACAAAA
217981	ATTAGCCAGG	TGTGGTGGCA	GGCACCTGTA	ATCCCAGCTA	TTCAGGAGGC	TGAGACAGGA
218041	GAATCGCTTG	AACCCAGGAG	GTGGAGGTTG	CATTGAGCCA	AGATCATGCC	ACTGCACTCC
218101	AGCCTGGGCG	ACAGAGTAAG	ACTCCGTTTC	AAAAACAAAA	AACCCAAGAA	ATTAATATTG
218161	CTTTTATCTG	GAGCCCAGAG	TGATGCAGCT	TCTGGCCCTC	TTATCTGAGA	CAGTGTCTCT
218221	TTAGTGTGAA	AAAGGATGCT	AATTTTCCCC	CAAACAACCC	ACAGTATCAT	GGGGGTAAAGT
218281	TAATGGCTGG	TCTGTGTAAC	TGACAAATTT	TGGTGCTAAC	GTATCTCTAT	AACTACTCTG
218341	TATAAACTTC	CTTCCTTCAG	AGTGGAGTTC	TGTCCTCCCT	GCCTTTTATT	GTGCTGCAA
218401	GCTGTACAAT	TTTAGGAGGT	CAGCTGGCAG	ATTTCTTTTT	GTCCAGGAAT	CTTCTCAGAT
218461	TGATCACTGT	GCGAAAGCTC	TTTTCATCTC	TTGGTAAGGA	TAAGCGTGTG	GGCCCATTTA
218521	ACCAATCCCT	TTTCTGCACA	TGGTCTCAGA	GGGTTCCTTG	ACAGCATGTC	CTCATTGCCC
218581	AGGGCTCCTC	CTTCCATCAA	TATGTGCTGT	GGCCCTGCCC	TTTGTGGCCT	CCAGTTACGT
218641	GATAACCATT	ATTTTGCTGA	TACTTATTCC	TGGGACCAGT	AACCTATGTG	ACTCAGGGTT
218701	TATCATCAAC	ACCTTAGATA	TCGCCCCCAG	GTAAGAGCTC	TACCTGTTTT	TTCCCCCTCT
218761	CCAGACCCCT	CCAGAGGTGT	TAGACCTCAG	TGGTCGCCGT	GAAACTCTTT	AATGTTACTG
218821	ACATTGCACT	AATGGCAGAA	TGACAAATAA	CTACAAATAT	CTGTCTGTGG	CCATTTTTAG
218881	AACAACAAAT	GTGGCATTTT	TAGAACAACA	ATTTCCAATC	TTGGCCAGTA	ATCATTTTGA
218941	CAAAAACCTT	CCCAAGCTTC	CCTAACAGAG	ATTGAACTGT	GTATGCTGGG	AAAAGGCCCA
219001	CACACAGGTG	ATTTGGAAAA	GTTTCCATGG	TGTTGTTTAT	ATTAGCTACC	ATATATATAT
219061	ATATATATAT	ATATATATAT	ATACAGTCAC	AATAAGCCAG	CTCCTGTGCC	AAGACTTGCC
219121	ATATATCAAC	ACATCTAATC	CTCACAGTTA	TATTAGGTAG	GCCCTATTGT	TATCCCCATT
219181	TTATAAGGGA	GAAGGCTGAG	GCACAAGGAG	GTTAAATGGT	GTGACTATGG	TCACATAAAG
219241	GCAGAGCCAG	GATTTGGACT	GGGGGAGTCT	GGCTTTGGAG	TCTGTGTCTT	GCCCGTTGCA
219301	CAAACCTGGT	TCTCCACTGA	GCAGCCGGGG	TAAAGAAACG	TGGTTCCCAG	AGAGACTGCA
219361	TTGCTCCCTG	GTTATTGACT	TGGTAGATTG	GTAATTTTCA	GTTTGGCAAA	TAGACATTGC
219421	CCTGAATGTC	TTTAGGTGAA	TGAAAACTG	CATTAAGCAA	AATGACTTTG	CCATTAGAGC
219481	TGAATTGCAT	TAAAGTTGAG	TTGCTGCAGA	AGCTGTAGGT	GGCTTTCTAT	ATAAAATCAT
219541	TTATAAAATC	ATCTTCCCAC	AGATATGCAA	GTTTCCCTCAT	GGGAATCTCA	AGGGGATTTG
219601	GGCTCATCGC	AGGAATCATC	TCTTCCACTG	CCACTGGATT	CCTCATCAGT	CAGGTTGGGC
219661	CAGTTTATTG	AACATCTTCA	AGTGGCAGGT	ATTGTTTTAG	GTGTTGGAGA	TACACACGGT
219721	GCTCTAAAGA	TCTGGATGGC	AACACAATTA	CTCTATTTAC	ATGAGCCTCT	AAATCAGACT
219781	CTGGTAGGTC	AGATTTCCCA	GAGGAAGAAA	AATATAAGCT	TATTTTCTCA	AGATGAATAG
219841	ATGTTAGATT	GATTAAAATG	AGCTGTTCCG	GTGCAGAAGA	CAGCACGTGT	GACTTCCTAG
219901	AGGTACATGA	GCATGAAACA	GTTCTTAGTT	ATGACCAGAA	TGAAAGACAC	ATGTCAAGGA
219961	ATAGCAAGAG	ACGAAGACAG	AGGGGCAAAA	GAAGATCATG	AAGAATATGT	TCAGACTAAT
220021	CCAATTTTTA	AAAAATCACA	AAAGGGAAAC	AAAGTGTCCT	AGGCCAGTTT	AAAGATAATT
220081	TAATGTCTGG	AAACAGATCG	GCTGTGAGAC	ATTGCAAGGA	GGCTTGCTCG	GTGTTTGGAA
220141	ATGCAGGCTC	ATGAGGAAGA	TGAAAAGACA	GACCCAGGCA	GGGATGGAAG	GACTGACGAG
220201	AACCAACTTA	CAAAGAGAAG	TTTTGTTTTT	ACTACATTTT	TATGTGATCA	AGTTCCCAGG
220261	TTAATATTTG	ACTAAACTGC	TAGGAATCCA	CTGTGACTAT	AATGCTGGAA	ATGACTTAGT

Figure 8 (Page 68 of 73)

84/162

```

220321 AGGGCTTTCT GAGGAGGGTC ACACAGAAGA CCAAAGAGAA CTCATGTTGA ATTGAGATGG
220381 GTTGTAGTGA TAGTTGTCAA CAGCCAATAC AGAAACAAAA AAAAAACAAA CAAACAGCAA
220441 CAACAACAAC AAAAAAAAAAC AGAGAAGACA CAAACACAAT GCCACAATGC CATTTTAGGC
220501 ATAATTTTAA ATGAGTAATA TTATATGTTG AAATCCAAAT TTTCAGAAAA ACATTAGTGT
220561 ATTTTATTTT TGTTTAAAGA AATAACCATC TCAACTCAGA ACCCCATGTG CATTTTGGCC
220621 ATTTTGTTC CAATAGTTTC ATAACTTTC TTAAGTAACT ACTGCACATT GTTCCTTATA
220681 TTCCTTGGA TCAACATTGC AATACACAAC TGGGAGGGCT ACTAGAACTG GTGTAGAAGG
220741 AACTTGTGAG ATTGATCATT TTCTCTGTTT TTTACATCTA GGATTTTGAG TCTGGTTGGA
220801 GGAATGTCTT TTTCTGTCT GCTGCAGTCA ACATGTTTGG CCTGGTCTTT TACCTCACGT
220861 TTGGACAAGC AGAACTTCAA GACTGGGCCA AAGAGAGGAC CCTTACCCGC CTCTGAGGAC
220921 ATAAAGTTAC AAACCTTAAAT GTGGTACTGA GCATGAACTT TTAAACATT TTTTACTTCT
220981 CTCCATTATC CTGACCATAG ACTCAGCAGT TCTTAACTCT GGCTGTGTGT TAGTCTTCCC
221041 TGGGGAGCCT TTATAAGACA CTGATACTTG GGACCCACTC CAGAGATTCT GAATGAATTG
221101 GTCTGGGGTG GAACCCAGAT ACTACTAATT TTTAGATACT CCTTAGAGGT TTTAGACTG
221161 CGCCCGGGGT TGACAACAGC TGGACAAACT TGAAGAGTCA ATTCATGTGG CCTTTGAATT
221221 TTCTTCATTG GAAAGTACTA AATAAATAAA AATTCATGTG AAAATGATCA CTGATAAATA
221281 TCTTCATGGT GGGGCAGGTT ATTGGATGCA GAGAAGATCT GCTCGGAATT GTAGCCATAT
221341 GTTACAGATC TCAGCACCAG TCGGAACTGT AAAGCTATAA TCCCAGAAAT TAAAGTTTTT
221401 ATTATTTTTT ATACATTGTA AAACATAGAC GTTTATTTAT GTGATTAAAT TCTATTAAAA
221461 TTTACATGCT AAAATAAAAT AGACCATTTT CAAATTATTT AGATCCAGAT ATTTCCATCA
221521 GATTAAACAG ATATTTATTT ATCCTAGCCC AATTGCAAGA GATTAATGAT GAGAAAATGA
221581 CCAATACAAG ATTAATAAAA TGAGGTTAAC TTAGAAATCA AGGACAGAGA AGATAGAACT
221641 GGAAGGCTTG TATTGTGAGA AGAATGAATG TGAAGGAAG CAATGTAGAC ACTTCCAGAA
221701 GGGATAGCAA TATAGTTTAG ACCATATAAT GAAAATTGGA GAGAGATGAC AGAGACACTT
221761 TCAAGTGAAA TGACAATTTA TATGGGGGAG AAAAATATTG AAGACATAAC AAGATGAGAA
221821 AAGGCATAGA AATGTATCAC ATACAAGGCA TAGAAGTGTA TCACATACAA GAGAAGTTCC
221881 TTTTGAGCGT AGAAAAAGAT AATTTAACCT TCTTCATATT TTTCTTACTT TCCAAGATA
221941 CTCAGATAGG CAGCGTCAAC TCTAACAGGA ATTAATTTGG CTCTAACAC TTAAGACATA
222001 TCCTTTAGTT TGTCTCCTCA CACAGAACTG ATTCTGGTTT TGCCACAACA TGTCTAGAGA
222061 AGAAGTCCC ACCATATTTT AAATCCTATT AAAAACTGC TTGGACAAGA ACCTTGGGTT
222121 AATTCAGCAG ATGAAGAGAA TCTCCTAATG CAAATCAATG GGTATTTTTG AGCAAGTTTT
222181 TCAGAAAAAC AGAGTGTCAG GCCCTGAGGG TGGTACTAAG ATGAGAACAT TGATTTTGCC
222241 TTCATGATAT TGACAACACA AAGAGGAAAG GGGGTTTGCA GAAACTAAA AGAAGAAGTA
222301 GAAGAAAAAA GAAAGACATA GTATAATAGG TAGTCAAAT ATGTACAGAA AAAAGAGAAA
222361 AAAAAACAA AAAAGGGTGG GGGACAGACA ACCCACTAA AAAATGGGCC AATGACTTGA
222421 ACAGGGACTT CATAAAGAG AAAATGTAAG TGGCTCCTTA ACATATAAAA AGATGTTCAA
222481 CTTCAATAGT CATTACAGAA ATGAAAATCA AACTACAAT GAAATACCAC TATAAATTA
222541 ACTAATGGAT AAAATGAAAG GAGATGGAAG ACAAATGTT GCCAGACATG TGGAGCAACT
222601 GGAACTTTCA TACGTTACGA ATGTGAACCT TGGAAAGCTG CTCGGAATA TCTCCTAAAG
222661 CTAATGTAC AATTCAGTG ACTCAAACAT TTTACTTAGA AATGCACATA TACATCCATA
222721 AAACATGTAC AACAATGTT ATAGGAGCAC TATCTGTAAT AGCCTGAACA GGAAGTTGTC
222781 TGTTAAAAAA AGAATGAGTA AATAAACAC GGTCTATTTG TATAGCAATG AGAATTAACA
222841 GACCCAATA TATAATAGAT GAATGGGTCT CATAAGCACA ATATTGATTA AAGGAAGACA
222901 AAACGCACAT TCTTTTAAAG GTTTATAAAA TACTTTTAA AAACAGCTAC AACCATCTG
222961 TCCTGTTAAA AATCAGTGAG CGATTTCCCT TGTGCAGGGA TGGGGGTTGT GGCTGGATGG
223021 ATGGTACTTA AGAAGTGCTC CTGGGGTACT AGAAATATTT TATTTCTTGA CTTGGATGTG
223081 TGTTTACTTT GTGAATATTG TACATTTATG ATTTGTGCAC GTTTATGAAT GTAGAAAATA
223141 AAACAGAAAG CAAATTCAA GTATCATCCT TTTGAGAGCT TCTGCTCTGA CTTCTGTTTTG
223201 ACCAATGGAG CAGTTGGGAA GGGGTCTTGG TCCTTCGGTC CTTTGCTTTT TTTTTTTTTT
223261 TTTTTTTTTT TAGACAGAGT CTTACTCTGT CGCCCGGGCT GGAGTGCACT GGCTCGATCT
223321 TAGCTCACTG AAAGCTTTC CTCCCGGGTT CATGCCATTC TCCTGCCCTCA GCCTCCCCAG
223381 TAGCTGGGAC TACAGGCACC TGCCACCATG CCCGGCTAAT TTTTGTATT TTTTAGTAGA
223441 GACGGGGTTT CACCATGTTA GCCAGGATGG TCTCGATCTC CTGACCTCGT GATCCGCCCA
223501 CCTGAGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CCGCGCCCGG CCCCTGGTCC

```

Figure 8 (Page 69 of 73)

85/162

```

223561 TCTGCTTTCA TGTTCTTCTT GGTCTGTTC CTCCTCCTCT TTTGTTGGAA CTTCCAGTAT
223621 CAGAGCAGGA AGGAAGGCAA TGGGTCAATC GATGCTGTCA GCTTTTGGAT CAAACTGCAA
223681 GTTCTCAAAC AGCAAAATTA ATGAGCTCAG GCTTTGAAGA AACCATGACC CTGAAAGCAT
223741 CAGTTGCTTC CAATTGCATC AGTTGCCACG GGTGATAAGA ACAATGATGA CTCAGAATGC
223801 CTAGGTTTTT CCAGCAGCTT CTCTGAGGTT TTCCCAGCAG CTTCTCTGAT TGATTCTCTGA
223861 CAGATGACTT CGGTGTGTCA GACTTTCAGG GTATCTTTCC TTATGTGATG GTTTGAGGAA
223921 GAGTTACCAT TCACATTCCCT AATGGCTTCA GAATAGATGC AATTGTGAAC TGATAGGAAA
223981 CATTTCTAAT TCATCTCCCC TCCCCATCCC TAAAGGATTG TTTCTAACAA TAGTCATGAA
224041 AATTAATTCA CTTTTCTCAA ATAGTTTATT GTCATCTACC TAATGATGAG ATGACTTACT
224101 TTTTCTCCTT GACTGTTAAA TATTATGAAT TATATTAATG TATTTCTTAA TGTTGAGCTT
224161 TCCCTTGAAT ATTCTTTTGA TGTACGACAG AATTTGATTG ACTAATAGTT TATTTAGGAC
224221 TTTGGCTGAT GTACTGATAT ATGAGATTGG CTCTGTATGC ATACATGTGT TTTGTGTATC
224281 TTTTTTGTGT CTGGATATGG AGCTTATGCT GATTTCAAAA ACAAGAAAGG AGAAGTTTCC
224341 TTTTCCCCCA TTACTCTGAA AAAGATTGAC TAGAATGGAA TTTTATAAT TGCTGTTGTT
224401 ATTTGAAAGC TTGAAAGCAT TGGTTTGTAA AAATCATGCA GGCTGAAAGC CATTTTGAGG
224461 AGACTTTGAT AACTTTCTCA ATTTCTTCA GTTACTGGTC TTTTAAGGGG TTTTATATTT
224521 TTCTTTGATC AATTTTGACC ATTTATGTTA TCTTGGAGGA TCATCTATTT TACACACTAT
224581 TTAAAGTATA TTTGCAAAAA TTCAACTGTT TTATCAGGCT ATCTTTTTTAA TAATATATTC
224641 ATTTTATCTA TATCTGAGGT TTTAGCTTCT TTGTACTTCT GACCCAATTG CATGTGTGCT
224701 TTCTTTCTCC TTCATTAGAC TACTTAGTCA TTTACTAATT TTAAGAATAG CTTGTCTTTT
224761 ATTTATTTAC TTATTTATTT TTGAGACGGA GTCTCACTCT GTCACCCAGG CTGGAGTGCA
224821 GTGGCGCGAT CTCGGCTCAC TGCAACCTCC GCCTCCCGGG TTCAAGTGAT TCTCCTGCCT
224881 CAGACTCCCG AGTAGCTGGG ATTACAGTCA TGCACCACCA TGTCTGGCTA ATTTCTGTAT
224941 TTTTAATAGA GATGGGGTTT TGCTATGTTG GCCAAGCTGG TCTCAAACCTC CTGACCTTAG
225001 ATGATCTACC CACCTTGGCC TCCCAAAGTG CTGGGATTAC AGGCATGAGC CACTGCGCCC
225061 AGCCCTGCTT GTCTTTTTAT TTTATATTTG ATTAGCTTTA TCTTTTATCA AGCTTATGTC
225121 CTATTTCCCT TTGCTTTACT TCATATAAAT TTTGTTTTGG ATAGTTTATT TATTTTTCAT
225181 TTAATTATGA AACAGGTTAA AGCTTAGAGG AAAATTGCTC CTCTAAGTCC AATTTTGTGG
225241 GCAGATTACA TTTTGCTGTG TTGTGCTCCC AAATTCATTG TTCTTTTAAAT GCTTTATTTT
225301 TCAAGTTAAT AACCTATATA GTAAAAAAGT GGCTGTTGAC TCTCAGCTTT TTTTTTTTTT
225361 TTTTTTTTTT GTAGATACAG GGATCTTGCT GTGTTGCTCA GGCTGGTCTG AAAGTCTGG
225421 CTTCAAGGGA TCCTCCTGCC TTGGTCTCAC AAAATGCTGG GATGACAGAC ATGAGACACC
225481 ATGCCTAGCC ATGTCTCTCT CTTATATAT AATAAGAAA CAGACACACT GAGGCATCCT
225541 ATCATCTCAC TCTTGGTTTC ACTACTGTTT TCTGGAAGTT TTGCTCTGAC CTTTTCAGT
225601 TAATGTATTA ATTTTGCATT GAGTAGTTTC CATAGAAGAA TTATAGCATT TGCATTCTGT
225661 TGGGTATTAT ACTTTTCACT GTTATTTGAA CATAATTTGA GGGCTGAAAC CAAGATGAGG
225721 CAAGTGAGGT GCCCAGGAAG CAATATTTAA GGAGGCATCC TTTCTTAGGC TCATGCAAGA
225781 ACAGAATTGG CACATGAGAG TGAGTGCCTC CTTAATTTTG AGTGCTGGAC ACTTCTTGCT
225841 CACTTAGCAT ACCCCTGGAC AATGAAGTGT TTTTGTGTTT GTTTTTTCAT GTCCATCCTT
225901 TATCCTTCTT CATCTCAAAA CATTTCAATG GAGTATTTTT TTGGAGCAGT ACTTGATGA
225961 GCCTCTGAGT CCCACAGTAG CTGAGAATTT ATTTTCATAGT ACTCTTTATG ATCACTGTGG
226021 AGCCTTAAAA CATTGTAATA TTAAGTTAGT TGGGAACAGA AATTTTGTTC CACAATTTGT
226081 CTTATTGAGA ACAGTATTGA CTTCCTGCTA GTCTCTTCTG ATGTCCAATA TGAGGAAGTC
226141 TAGTTAGCCA GCTACTTTTT GTAGGAGAGC TATGTTTAGG CTAGGTGCTA TAGGATTCTC
226201 TTTATCCTGG AATTCCTTCA CCAAGATGTG CCAAGGTGTT AATCATTTTC TCTTGCTTTT
226261 TGGCTGGTGG TCTTAGAGTT TCCTTCGATT TTGTTTTATT TAGTGATTGT CCTCAATTTG
226321 TTTTCTTTAC TAAGAATCTC TCTTCTATTT ATCTGTATGG TAAAACCTTG TTGCCATCT
226381 TTCTGGTTTC TGCTGACTTT CATTTTGGGA CCTTTTACTT TGCTTCTCC ATGGACTTTT
226441 TGGTAGTGGA GGCAGGCAAA CACTTCCAA AGTCTTCTC AATTTCCATC AATTTCAACT
226501 TATTTCTTAA AATTGCCTCA GAATGTGCTT ATGTCCACAA TATCCCTCCT TCCACTTTAG
226561 AAAGGAAAGG CATCCACACT TTATTTAGGT GCAATGCCTG AAGTGTAAC ACTTTCTGGT
226621 TGTCAACAAA GGAGTACTTC CAAATATTGG TTTGGGGATA ACCTGCTAAT GATTAAACACA
226681 TTCACCTTGG CTCTTGTTTT GCCTGCTCCC TCTTCTTTTA TCTGCTGTGT GTATTTTTTT
226741 TAATCACTGA GAATATGCAC AGTATTGTAT GTTTTATTAT AAGAGAGGAC TGGCCAGAGT

```

Figure 8 (Page 70 of 73)

86/162

```

226801  GGAATGTTT  TGAATTCAGA  ATAAGTGAAG  CAGTACAGGA  TAGGAAGTCA  TTCTTTTCAA
226861  TGAAGCTGGC  ATATTTTCCC  AGAGCACCAA  ATTTCAATAT  ATATTTAAAA  AACTTGATAT
226921  GAATGATACA  ATAAAGTGGT  TAGAAGTTTT  ATTTAAATAA  ACTTATGTCA  TGAAATACTT
226981  ATTCTAATTA  TAGTCACTCT  TCATCTTATT  TCATCTTATA  ACATGTTTAA  TGTCTTCTTT
227041  TATTTACAAA  ACAATTTATT  TTTTGATGAA  AAGTTTTAGA  AATCAAGTTA  AAAATATTCA
227101  AAGGAATGCC  TAAAGTTTTT  AAAATTTCTT  TACATGTTGT  ACAATCAAAA  GAGTCTGAAG
227161  ACCATTTAGC  TATCCAAATT  GTTTATTTTT  AAGCAGTATC  CCTTCTAATA  TTTACTATTT
227221  ATAATCCTTA  AAAATTTGCC  TTAGCACAGG  AGAATTGCTT  GAACCCAGGA  GACGGAGGTT
227281  GCAGTGAGCC  AACACAGTGC  CACTGCCCTC  CAGCCTCGGC  GACAGAGTGA  GACTCTGTCT
227341  CAAAAAAAAA  AAAAAAAAAA  AAAAAAAAAA  GCCAAAAACA  AATAAACAAA  CAAAAAATC
227401  CGCCTTAACA  TTATTTGTTT  ATTTAAAACT  TTCTTTAATA  CTACTAGTTT  CCCTTTCTCT
227461  TCAGCCCAT  GTCATATTTT  GATTTTATAT  ACTTGCTTTG  TAGGACATAT  GAGGTTTTTG
227521  TTTTTTTTTT  TTTTGGGAGA  TGCAGTCTCC  CTCTGTTGCC  CGTGCTGGAG  TGCAATGGCG
227581  CAATCTTGGC  TCACTGCAAC  CTCTGCCTCC  TGGGTTCAAG  CAATCTCCTT  GCCTCAGCCT
227641  TCCAAGTAGC  TGGGATTACA  GGCACCCACT  ACCACGCCTG  GCTAATTTTT  GTATTTCTGG
227701  TAGAGACGGG  GTTTCACCAT  GTTGGCCAGG  CTGGTCTCGA  ACTCCTGACC  TCAAGTGATC
227761  CACAATCCTT  GGCTTCCCAA  AGTGCTATGA  TTACAAGCAT  GAGCCACCTG  CCCAGCCAGA
227821  ATATATGTTT  ATTTTGAGTC  CTTTAAACAA  GTCATAAGAA  TTTTAGGAAT  TCAGTTACTT
227881  TCTTGAGAAA  ATCTCTGAAA  AGATGCCAAT  AATTTGTAGC  CAATTATATT  GATTTCTCTT
227941  TTTTATATTG  AGAATTGTTT  TTTAAAAAGT  TTGTATGTGT  GAAGATTTTT  GCACTGTAGT
228001  TAAAGAAACC  ACCTGTGTGT  TGGTTAAGCC  ATAAGTACAT  GTATTCAAAT  AAATTGAGGT
228061  GGGGTTACTC  TGAGAATCAA  AGGAAAACCT  GAAGAAACAG  GCAGCCTCAA  AAGGTCTTAG
228121  CTGTAGCAAC  TTGCTCCATT  GTTGAAATAA  ATAGGCTTGA  ACTTGATATT  TCCCTCTACT
228181  CAACATTTAA  GGTCTCAGAA  GATAATATAA  TTGGTGAAAT  TTAAGTAAAG  TGCTCACTCT
228241  TTTGCTTTAA  CAAACCCTAG  AGAGCTGGTA  GGCAGAGCCT  CAACAGACCG  TTTTAGCTTC
228301  CAAAGGGAGT  TCAGGACACC  ATGATTCACG  ACCACAATAC  ATCACACATA  ATTGAGAAAA
228361  GATAGTTCCA  CCAAATAAAG  TTGAAATGCT  GACAAGAAGG  GGTAAGAAAT  CTTGGAAATA
228421  AGTTTATATA  AAATTTATTT  TTTCTTTTTT  TATTGTTATG  GAATAGGACC  AGTTCTACTT
228481  AAGCCACCCA  TTTGCCAAAA  TAAAGTGAGA  ATCGTTTCTT  TTGGGGACTC  CTCTTTGTAG
228541  CTCCAAGTGC  CACTAACAA  TCTTAGGACC  TGAGCTATAA  GCCAGGTGAT  TTCAGTTAAT
228601  ATGATCAATT  ATTTCAATTA  AATGGCTCTA  ATGTGCAGAG  GGAACGGAGC  CCATCAGCAT
228661  TCCCTGCAGG  GAACTGCAGT  GGCTTTTATC  AACTTGAACA  GCTAGCTTTC  AACTGTTTTG
228721  AAATCACTTT  CAGGGTGGTC  ATGTAGTTGC  TTTTTTGAAA  TCAGAAGATG  ATTCTGCCTC
228781  TTTTAATATG  TGAATCCTCA  GATTCAGAAA  GTGCTCGCTA  GTCTTAAGAG  TGAATTACCC
228841  TCAGTGGTCC  AGCGCTTATG  AACCACATC  TAACCTATC  CCCTGGGGGA  ACTATCAGAG
228901  AAATTTGGTG  CATGGACATA  AGAGGAAGGC  ACAGTGAAGC  AGAGAGCCCC  GCATGATGAA
228961  AATCAGTGGA  CAGCATCATT  ATTTACAAT  TTGTAATCAC  CCAGGAGCAT  GAAAATCCAG
229021  GCCAATCTGG  CACCATGAGC  TCTAATTTTT  GTTGGAGTTC  TTGGAACCGA  TTCTGATGAA
229081  TGAATGTTTA  GCCATTTTAG  AGTGTGGCAT  ACGTGGCTGC  TGGCATAACAG  AGGTGGATG
229141  TAAACGGGCC  TTTGCCCTCT  CTTATGAACA  TAGACAGGAA  CTAACTGTG  TCACATAGGT
229201  TCCAAATGGT  GGCTTGAATA  CTATTTACAA  CTAAGGTACA  ATGAAATTGA  GTAAGTCTTT
229261  TCCTCTTTTG  CAGATACCAT  CATTATTCAT  ATATTTCTTC  AAAGTTAACT  ATTTGTATTT
229321  GGTAATTTTT  AATAGAAATG  TAATAATTGC  TTCTCAAGTT  TAGTCTTTAG  TCTTAAGGTT
229381  GATGCTCTCC  ATGCTCTTCC  AAAAAAAGGT  ATGTTGCTTT  TATTATATCC  TCGCCTTCAG
229441  ATGGGATTAT  TCCATTTTGT  TCTTTGTTAA  TATATACTTT  GAGCCACTTT  TTTTGTGGCT
229501  CTGGGTGAGA  TGCTATAGGT  ACAATGACAA  GTGATACGTG  TGTGTCCCT  GTCACAAAAG
229561  TGGATAGCCT  AAGTGGTGAC  TTTTACCTCC  ACTCCAAATA  TATGTATCAC  ACACCAGCCG
229621  TATGCCAGGC  ACCACTCTAG  GTGCTAGGGA  TACAGCAGTA  AACAGACAAA  TGCAACCCCT
229681  GCCCATGTGA  AAGAGAATAA  GACAATAAAT  AAGTAAAGTG  CATGTTATAT  GGAGGTGGCA
229741  AATGCTAAAA  AGAAAAATTA  AGCAGGCAAG  AGGACTCATT  GAAAAAGATG  CATTTGGGTA
229801  AAAGCCCATG  TATATATGTT  CTATTGGTTT  TATTTCTCTG  GAGAGCCCTG  ACTAATACAC
229861  AATGACTTTG  AGAAGTTACT  GGCTTTTGAT  TTATCACACT  ATTCGGAGTG  CTGAGAGCCT
229921  TCTTAGTGTG  TATTCAGTGT  TTTAAGAGAG  CTTGTGGATG  AATAATAAAT  AGGACAAAAT
229981  TTATCCAAAC  TTAAGCCTTG  CTTTAGGTAA  AAGGGCTCCT  CTTACAAGGT  AGAAGGTTAT

```

Figure 8 (Page 71 of 73)

87/162

230041	TATTTGGCAT	TTAAATCCAA	CTGAAGACTA	ATAAGACTAA	TTAATTAAAA	GTTTTTAAAT
230101	CACAACTGGG	TGCAAAATAA	ATGGAAC TGC	CATGCTCGCC	AAGTGTGCAT	GAGTGGTGTG
230161	CATGGGAGAC	AGCACGAAGC	TAATCCCAC T	CATCTTGCAG	GTTGCTCCAT	TTTTCTCCTA
230221	AAATCAGTAA	GACAGAAGCT	GGTCAGATTA	TCAAGAGCCC	TAGTTAAACA	CAGCAGTAGC
230281	ATTTGGAAGG	GGTTGCTCTC	ATTAGGCAGT	GCCTGACCAC	AACAAGAGAT	GAACAAGCCC
230341	TGTATCTGAA	GCCATCATGC	CTAGTTATGG	TCCCCCACTG	TTCATGATGC	CTGAAAGGGA
230401	GGCCCCCTGC	ACCCTAGAAA	GCTGGGTGGG	TTCTACTGTC	TGCTTTACTG	CTAAAAACCC
230461	TCTTCTTTGG	ATCTGGACTT	TACCTCTATC	TGATTTTTTTT	TTCTAATATA	TGATTTGGCA
230521	CTGAGTCTGT	CAC TGC TGC T	AACTCAGCAG	TTCTAGGGTC	ATTGCCCCAT	TGCCTCACAG
230581	AAAGAATTTT	ATAGCTTCCA	GCATCCTCTC	TCCTTCATTA	TACTTTGATT	TCAGCATTGC
230641	TATTTTTTTCT	CTTGGGTGTT	GCAGCTCTCT	CTCTCCTTCC	CATGTCTTGT	TGGTTTTCTG
230701	CTAACTCCTG	CTTTTTTTTCT	TTTTTTTTTTT	TTGAGACGGA	GTCTCGTTC T	GTCACCCAGG
230761	CTGGAGTGCA	GTGGCACAAT	CTCGGCTCAC	TGCAACCTCC	GCCTCCCGGG	TTCAAGCTAT
230821	TCTCCTGCCT	CAGCCTCCCA	AGTAGCTGGG	ACTACAGGCG	CTCACCAC TA	TGCCCCACTA
230881	ATTTTTGTAT	TTTTAGTATT	GCTGTCATCA	ATCCACATGT	CCAGAAGCAC	CTAGAAACTC
230941	TAATTC TTTG	TAGGTATCAA	ACCCTAGGAC	TCTTTCCTCT	AATCACAATA	TATAATCCCT
231001	GATTC CCAAA	CACGGTCTTT	TCATATACAT	TTTCCACTGT	ACATACTTTT	TGACCTGGAA
231061	AGCTCTTACA	CAAACACGCC	CTCCCCTAGG	AAGCCTTTAT	AAATGTTCCC	AGGAAGAATC
231121	AGTCACCCAA	CAGTGTCTTT	GTCACATCTT	AGGTTCTACA	CCTTTATTTG	TCTTCTCTGA
231181	ATGTAATCTC	CCAGAGGGTG	TTATCATCTT	TTTTTTTGAG	ATGGAATCTT	GCTTTGCTGC
231241	CCAGGCTGGA	GTGCAGTGGC	ATGATCTCGG	CTCACAGCAA	CCTCCACCTC	CTGGGTTC AA
231301	GTGATTC TCC	TGCCTCAGCC	TCCTGAGTAG	CTGGGATTAC	AGACGTGTGT	CACCACACCT
231361	GGCTAATTTT	TGTATTTTTA	G TAGAGACAG	GGTTTCACCG	TGTTGGCAAG	GC'TTTCCTCG
231421	AACTCCCAAA	CTCAGGTGAT	CCACCCGCCT	CAGCCTCCCA	AAGTGCTGGG	ATTACAGGTG
231481	TGAGCCACCA	TGTCCAGCCC	CATCTTTTTT	TTTTAGTTTA	GTTCTTAACA	AATAGTCTGA
231541	CACAAAGTGG	ATATAACAAT	ATTTTGAATT	ATGAATAACT	AAATGAATAT	TTCCAGATTT
231601	CCTGGTGCTC	TCAAAGTTTT	ATGTTACAAA	AGAAAAACAA	GTCTAAAATA	CCTGCCTCAA
231661	GTTTTTATCT	GTACTATGAT	TTCAAACCAA	ATAAAAAACA	GGTGGGGTAA	AAACTGAAAC
231721	AGGAAATACA	TATAACTGAA	AAATTTTGGT	ATGTTAGTAT	GATAATACTA	GGTCATTTTT
231781	CCTGTTTCCC	CAACTTCATT	TTCTATAGCA	ATAAAAAAGAA	ACAAGTAAAT	GTATATTAAT
231841	TTAATTTAAA	AGAAGTAGTC	TACCATCTCT	TCTGTTAAAA	AGAAAAAGT	ATTTTAAAAA
231901	ATTATCTCTG	GAAGGATACA	CAGGGAACAT	TGCTCTGGTT	TCTTCCAAGA	GAGAAATGAG
231961	GAAC TAGAGA	GCATGGCCAA	GTGGGGTTTT	GCTTTTGT TT	TTGTTTGTCT	ATCTGTTAGC
232021	TTTTTATTAT	TTTCTTTTGT	AGGTTTGAAT	TTCAAACCAC	ATAAATCTGT	TACATGCTCA
232081	TAATAATAAG	TTTAAAAATA	AAC'TTTTGGC	TGGGTGCAAT	GACTTACACC	TGTAATCCCA
232141	GCGCTTTGGG	AAGCAGAGGT	GGGAGGATAC	TTGAGGCCAG	GAATTTGAGA	TCAGCCTGGG
232201	CAACATAGTG	AGACCCTGCC	TCTGTAGAAA	TAAACAAAAA	TTAGCTGGAT	ATGGTGGTGC
232261	ATGCTTGTAC	TCCTAGCTAC	TTGGGAGGTT	GAGGCAGGAG	GATCCTTTGA	GTCCAGGAGT
232321	TTGAGGCTGC	AGTGAGCTAT	AATCACCAC	TGCACTATAG	CATGGGCAAT	AAGGTGAGAA
232381	CTTGTCTCAA	AAAAAAAAAAAA	AGGGGGGGGG	AAACAAATAA	ATAAATATAA	ACAAAACTTT
232441	TGTTTCAAAA	TATGTAATAT	TTAGCACTAA	AGAATTCTGA	ATTGTAGAGC	TAAAAAGTAC
232501	TTAAAAGTTA	ATAATTATTG	TCTCCTTTAA	AAGAATTGTT	ATCAAAGTAT	AATTTTTATC
232561	CAGAAAATCA	TCCATATCAG	CAAGCTAAAC	TTTCTCAAAA	TGACATATCC	ATGTAATTAG
232621	CTCCCAGGTA	ATTAGCAGGC	AGCCTCTACT	CAGGTTGAGT	ATTCCTAATC	TAAAAATTGG
232681	AAATTCAAAA	TGCTCCAAAA	TCGGCAACTT	TTTGAATGCT	AACATGATTC	TCAAAGGAGT
232741	GCTCATGGAA	TATTT CAGAT	TTTGGATTTT	TGGATTTGAG	ATACTCAGTA	TAATGCAAAC
232801	ATTCCAAATC	TGAAAAAATC	TGAAATACTT	CTGGTTCTAA	GCATAAGGGA	TACTCAACGT
232861	GTGTTAGCTA	ATTAGACCTT	TCATGGTCTC	TTCTAGACCT	CAGCTTCTTC	AAGGTAACCT
232921	CTATCCTCAC	TTCTAATAGC	ATGAAC'TTTT	CTGTTT TAGA	ATAA'TTTGGA	TTTT CAGGAA
232981	AGTTGCAAAG	ATAGTACAAA	GACAGTACAG	GAGAGTTCCC	ATATATCTTT	CACCTAGCTT
233041	TCCCCCATTG	TTAGGATTTT	ACATTATTAT	GATACATTTG	TCAAAATATA	GCAACTCACA
233101	TTGATACATG	AAACTCTATT	AACCAAACCC	TAGACTTTAT	GTGGATTTCA	CCACTGTTTC
233161	CACTAATGTT	TTCTTTCTGT	TCCAAGGTCC	AATCTGGAAT	ACCACACTGC	ATTTTCTTGT
233221	CATATCTCCC	TAGTCTTTTT	TTGTCTGTGA	CAATGTCTCA	GTCTTTTCTT	GCTTTTCATG

Figure 8 (Page 72 of 73)

88/162

```

233281 ACCTTAACAG TCCTGAAGAT CATTTGCTTT TTTTTCATAA TTACACCGGA GTTATAGATT
233341 TTTTGAAATA ATACCACAAG GGCAAAAGGC CCTTCTTGTC ACATCATTTT AGGGAGAAC
233401 TGATATCCAC ATGACATCAC TGATATTAAC CTTTCATCATG TGGTTTAGGT AATGTTTCAG
233461 GTTTCTCTAC TGCAAAGTGA TTTTTTCCC TTAATTTAGC CCACCTGAAC TTATCAATTT
233521 TGTTTCTTTC CATGACTAAT ACTTTTGTTA TTATAGCTAA AACTTCATTG GGGCCAAATC
233581 TTAGATCATG TAAATTTTCT TCTATATTTT ATTCTAAAAG CTTGTAATGT TTGATACATT
233641 CTAAGAGATG TAATGTTTGA TACATTACAT CTAGTCCTTT GATTATTTT TAGTTACTTT
233701 TGTATAAGGT GTGAGAGATG TCTCCAGTTT CACTTTATTA ACACATTGTG GTGTTCCAGT
233761 ACTATTTGTT GCTAAGACTA TCTTTTTTCC ATTGATTACC TTTGCCTTAG TTGGCAATAT
233821 TTTTGTTGGT TTATTCTAG ACTGTTTATC TCATTCCACT GATTGTGTG TATCTTTTTG
233881 ACAAAAGTGT TGATTACAGT AAGCTTTGAA ATAGTTCATT TTTGTGTGCA ACTTGACTGA
233941 GTCAGGGGAT AACCAGCTAT CTGGTTAAAC ATTATTTCTG GCTGTGTTT TGAGCGTGTT
234001 TCTGGATGAG ATTAGCCTTT GAATAGGTGA TCCTAGTAAA GTAAACTGTC TTTCCAGTG
234061 TGGATGGCAT TATGCCACCT GATATTCAGG GTCTGAATAG AAGAAAAGGC AGAGGAAGGG
234121 GGAATTTGGG CCTTTTTTTC TGCCCTCACTG CTTGAGCTGG GACATCTCAT CTGGTCTCCT
234181 GCTCTTGAAC TGGGATTTAC ATCATCAGTT CCTCTGGTTC TCAGGCCTTC AGATTTCAGAC
234241 TGAATCATA CACCAGCTTT CCTGGGTCTC CAGCTTGCAG ATTACAGATC ATGGGACTCC
234301 TCATCTTCCA TAAATGCATG AGCCAATTCA GTCTATGTCC TTGAAAAGTG CCCCAGTGCA
234361 GATTAAGGCT TTTTCCACT AGGTGAAATA AAGAAGCTTG TTAGACAGAT TTCCCTTCAT
234421 CCAGTGCCCT CTCCTCTTTA AGTTACAACA CATTGGCTAC ACCTAAGTGC AGGGGTGGGG
234481 ATGAGGGTAT AGTCCTCTTG TTTGCTGAGA AGAGAACTGT ATTGGGAAAG CTCTAGAAGT
234541 GTTTGATACA TACATAAACA AGGCATGGTT TTTGCACTTA ATTTACATT ACATTTTTCC
234601 CAGAAAAAAA GGAATGTATA GGCATCACGT AACTGTACTA GCTGGAGTCA TTCTTCCTGA
234661 TTATCAAAGG TAAACAGTTA TTAATCCTAT ACCAAGATGT CAAGGAGAAG TACTTTTGGA
234721 ACACAAGGAA TTCTCTGGGA GTCCTTACTA CTCTCAAGCC CAGTGAAAAA GTTAATGAAA
234781 AACTATAGTA CCTTCCTATA AGCTGGATGA CTAATTACCA GGCTCATTTA GGAATTTGCC
234841 TTACCAAGTA AAACATAAGG GCAGCTGAGG TGCTGACTGA AGACAAATGG AGCATAGAAT
234901 AAGAGTAGTA AAGAATGCCA AAAATGCTGT CATGTATCCA TTGACAAAAG GAGCTATAAA
234961 GCCTTTAGGT ATTTTCACAC TTGCTCTGTT ACGTAAATGT ATGTGTGTGT GTGTGTGTGT
235021 GTGTGTGTGT GTG

```

Figure 8 (Page 73 of 73)

89/162

```

1   CACACACACA CACACACACA CACACACACA CACAAATGAG GTATATAAAG GGTCTCCTAA
61  AATGTCATCT GATATTTGTT ATTTTCATATT CTCAGATTTT TAATCCATTT AGGTAGGTCT
121 ATTTTAGATA GCCTTGTCTG AAACAGAGCT GGGACCTGAT GAGTGAATAAT GAGCTCACCA
181 GAAGAAAAAT CAAACAGGCA TTTCAGAGAT TGAGGCCAAG AAGTTAAATG TCTTAAATGG
241 GCAGAGCTTA GCTGCTTGAT GTGAAAAGAG ACCAGCGTGG CTGGAACAGC AAAGGAGAAC
301 AGCAGAAGAG GTGAACAGAG GCCAGAGATG GTCACGTAGT GGGCCCTTAA GTCATGGTAA
361 GGAGTATGGA GAATGAATTA TTGCATGTAT TGAATATGTA GGTGACGTGA CTCACAGATA
421 CTTTGGATTT GTAGAGATGA AGGAAATGTA GCAAGTGACA CTCTTAGAAT GTTGATTGTA
481 GTAAATGGTA GTGTCAGTTA TTGAACTGGG GAGAACTGGA AGGGATAACA GGCTTAAGGA
541 GCACGTTTAT TCCTGTGTCT TGGAAGTGTT TAGGGTGAAA GACCTATTAG AGTTCTAAAT
601 GGAGATGTCA AGTGAATAAT TGGCTACACA CATTTCGATT TCAGAAAAAA GGTGAGGCTG
661 GAGATGTAAA ATTGGAAGTT TACTGCATAT AGATAGTCTT TGGAACCGTA GTATTGATGA
721 AGCCATTAAT GAGACAGAAC AAAGACTAGG GACCAGAGCC AAGCTCCAAG TTTCTAAAT
781 TTAGAGGATA GTATAGTCTG GTCATTTTGA GGTGAATACT TAATAACAGA ACAATTTGCT
841 GAAGTGTAAA TTTAGAGCCC TACACTTTTA GCTCTGACTA TTAACGAATA CAGGAAAGAA
901 TGGATATGGT TATCTGCCTG GTGTCTGTGA AATAATTTAA GCCAGGAAGA GATCCTCACC
961 AGAACTGAC TATGCTGGCA ACTTGATCT TAGATTTCCA GCCTGCAGAA TTGTTAGAAA
1021 ATAAATGTCT ATCGTTTAAG CCACCAGTCT GTAGTATTTT GTTATGGCAG TCCAAGCTGA
1081 CTAAGTTTTG GTACCCAGGC GTGGGATGCT GCAACAACAA ATACCTAAAC ATGGGGAAGT
1141 GGCTTTGGAA ATTGGTGATG GGTAAGGCT GGAAGAGTTT GAGGTTTATA CTAGAAAAAG
1201 CCAATTGTGA AGGGACTATT GAAAGAAATA TGGACATTAA AGGCAATTCT GGCAAGGCT
1261 CAGAAAGGAA GAGAGCTGGA CAGAAAGCTT CCATTTTCAT AGAACTTAG ATTTATAACG
1321 ATCATGGATA GAATATTAAA TATGCTGGTT AAAATATGGA CTTTAGGCCA GGCGTGGTGG
1381 CTCACGCCTG TAATCTCAGC ACTTTGGGAG GCTGAGGGCA CAGATCACGA GGTGCGGAGT
1441 TTGAGACCAG CCTGGCCAAT ATGGCGAAAC CCTGTCTCTA CTAAAAATAC AAAAATTAGC
1501 TGGGCATGGT GATGTGCTTC TGTGGTCCCA GCTACTCGGG AGGCTGAGGC TGAAGAATCG
1561 CTTAAACCCG GGGGGTGGAG GTTGCACTGA CCAAGATCA CACCACTGCA CTCCAGCCTG
1621 GGATACAGAG CAGGACTCCA CTCCCCCGC CACACACACA CAAAAATAT ATATATATGG
1681 ACATTAAAGT CAACTCTTGT GAGGTCTCAG ATGAAAATGA GGGACAGGTT ATTGGAAACT
1741 GTAGAAATCA CTGTTCTTGT TACAATGTGT CAAGAATTG GCTGAATTAC GCTGTAGTGT
1801 TTAGTGGAAA GAACTTATAA GCAGTAAAC TGGATATTTA CCAGAAGAGA TGTCTAAGCA
1861 AAGTATTGAA GGTGTGATTT AGGTCTCCT TACTGCTTAA AGTGAAATGT GAGAGGAAAG
1921 AGCCGAAATA AAGAAGGAAT TTTTAAGCAA AACACAATCA GAACTTGGAG ATTTGGGATA
1981 GATTTCTCAA TCTATATTGT AAAAATTGAG AAAGTTTTTC TTGAAGAGGT ATGGTTGAAC
2041 AATGTTTTCT TTTTCTTTTT TTTTCTTGGT TTTATTTTTT TTTTATGTT TTTTGAGACA
2101 GGGTCTGGCT ATGTCATCCA GGCTGGAGTG CAGTGGCACA ATCTCAGTTC AGTGCAACCT
2161 TTGCCTTCAG GCTCAAGCAA TCCTCCCACC TCAGCCTCCT AAGTAGCTGG GACTACATGT
2221 ATGCACCACC ACACCCTGGC TAATTTTTTG TTGTTGTTTA TAGAGATGGG GTTTTGACAT
2281 GTTGCCTAGG CTGGTCTCTA ACTCCTGAGC TCAAGTGATC TGCCCTCCTC AGTCTCCCAA
2341 AGTGTGGGA TTACAGGCGT GAAACACTGA GCCTAGCCTG AACAACCATT TGATAAAGAG
2401 ATAATGGGTG TGACCCAAGG ATTTAATCAG CCATCTCAGC AGAAGCCAGG AAGAGAGATG
2461 GGATTATTCC AGCAGAGACA CTGCCAATTT AAACCTAACGT AGGCAGAGAA AACAGAAAGG
2521 AACAAAGGAA GGTGTGCGAC TTTTGAATT CTATAGAACA GGATCATAGA GCTACCTGGC
2581 TGTCATGTG TACTATTCTT TAAGAAAAGG AAAGACTGAC CCACCAAGG CAACTTACAA
2641 GATCACTAGG GCTGACTCTT TTTTGTTTT TCTTGAGGCA GTCTCACTGT CACCCAGGCT
2701 GTAGGGCAAT GGTGTGATCT CAGCTCACTG CAATCTCCAC CTCCCAGGTT CAAGGGATTC
2761 TCTTGCCCTA GACTCCCAAG TAGCTGGGAT TACAGGCTCT AAATCTGTAC CCTCCCAGT
2821 AGCGCTCCTG CCACCACTTG CCCAGCTAAT TTTTGTATTT TTAGTAGAGA TGGGGTTTCA
2881 CTATGTTGGC CAGGCTAGTT TGGAATCCT GACCTCCAGT GATCCATTCT CATTGGCCTC
2941 CCAAAGTGCT GGGATTACAG GCAGGAGCCG CCAGGGCTGC CACTTTGATG TCAGACTCAG
3001 AGAGTACAGA TGGGATAGGG TGGGGGTGGG AACATGTAGT CAAGGCTGAC TCTACCTGTT
3061 TCAAAGATGC CCTGCAGAAC TGTGTGGGAG TCTCTCACAG ATGGCTGCCT GGGTGGGACC
3121 CCACCAAAC T GAAAGACCGA GACTTCAGGC AGGGCAGATG GAGTAGGCCA ACTACAGAGC
3181 CAGAGGTGAC ACTGAGACAC CACTGGGCCT GGAAATCAGG GCATCAAGCC AAAGAGGGTT

```

Figure 9 (Page 1 of 74)

90/162

```

3241   TTTCTTAAGA CCTAACAGAA TTTGCCTTGC CAGGTTTTTG ACTTGATTAG GACACATTAC
3301   ACCTTCCTTC TTTCCATTTT CTCCATTTTC TAATGGGAAT GTCTATTATG CCTGTTTCAC
3361   CATTGTACCT TAGAAGCATG TAACATTTCT GGTTCACAC GTTCAAAGCT GGAAAGGAAT
3421   TTTGTCTCTG GATGAATCAC ACATTGAGCC TCACCCGTAA CCTGATTTAG ATGATTTTTT
3481   AGATGACACT TTGAACTTTA GAATTGATGC TAGAATGAGT TAAGACTTTC AGGGGGCTGT
3541   TGGGATGGAA TAATTTTTTT TTTTTTTTGT AGACGGAGTC TAGCTCTGTC GCCCAGGCTG
3601   GAGTGCAGTG GCACCATCTT GGCTCACTGC AAGCTCTGCC TCCCGGGTTT ATGCCATTCT
3661   CATGTCTCAG CCTCCAGAGT AGCTGGGACT ACAGGCGCCC GCCACCACGC CTGGCTAATT
3721   TTTTTTTTAT TTTAGTAGAG ATGGGGTTTC ACCGTGTTAG CCAGAACGGT CTCGATCTCT
3781   TGACCTTCTG ATCCGCCTGC CTTGGCTTCC CAAAGTGCTG GGATTACAGG TGTGAGCCAC
3841   CATGCCCGGC TGGGATGGAA TAAATTTATC TTGTATGGGA GAAGGACATA CATTTTGGCA
3901   GGTCAAGGAC AGAATGTTAT GGACTAACT GTGTCCCCCA AAATTCATTT ATTTAAACCC
3961   TAAACCCAG TGTGACTGCA TTTGGACATA GAGCCTTTAG GGGGTACATA AAACATAAGA
4021   TCACAGGATA GGGCCCTAAT CCCATTGGGG CTGGTGTCTT TACAGAAGAT GAGACACTTA
4081   GAGCTCTCTC TCCACGCAGG CACCAAGGAA ACACCATACA AACACACAGT GAGATGGCAG
4141   CCATCTGTTA GCCAGGAACA GATTCTCACC ATAAACTATG TTGGCACCTT GATCTTAAAC
4201   TTCCAGGCTC CAAAACGTG AGAAAAAGAA TTTCTGTTCC AAGCCTCTTA GATATGGAAA
4261   AAAAGATTCT GTTGTTTAAG CCATCCAGTC TCTGGTATTT TGTATGGCA GCCTGAGTAG
4321   GCTAAGACAA TGAAGGATGT GGTAAAACTT TACGTCCCAA CCACATACCA AAGAGGCTGG
4381   AATTTAGCAT GCTTCTTCT TCAACTGTA GGCAATGTGC ACAAGTTCTA AATCCTAAGA
4441   CATGTTGGCT CCTTTACTCT GCCCAAATA CAACCAACTGT AATATAATAA
4501   CATCCAATGA AGTTCTGACA TTTCTTCAAC ATGAGTACAG TAATCAATG CCAGAGAAAT
4561   CATTTTATTT TGAAATCTAC ATGCCATATT CCAATTTCTG TTGAAGATGC AATGGTTATA
4621   TTTATTCTTT TTAATATAGA TTTATCAGAC TGGGCGCGGT GGCTCATACC TGTAATCCTA
4681   GCATTTGAGA GGCTGAGGTG GGCATATCAC CTGAGGTCAG GAGTTTGAGA CCAGGCTGGC
4741   CAACATGGTG AAACCCTGTC TCTACTATAA ATATAAAAAAT TAGCTGGGTG TGGTGGTGCA
4801   TGCCTGTAGT CCCAGTTACT AGGGAGGCTG AGGTAGAATT GCTTGAACCT GGGAGCAGGA
4861   GGTGCAATG AGTGGAATC GCACCAGTAC ACTCCAGCCT GGATGACAGA GCAAAATAAT
4921   AAATACATAA AATAGATTTA TCAGTTTATC AATAATATAG TTTTCTTTTC TAGGTGTAAA
4981   TATAGGTAAT GACTGTCCTT TAGTACATTT TCTCATGATG CTCCTCTTAC TTGGTTTGGT
5041   ACAATATTAA GTATTGAAAT AAAATAGAGA ATCCTGTCGC TACACATGAG CACTTATTCC
5101   ATTTGCTCAT CTCCAATATG CACGGGAAAT TCTCAAATTG CTAATAATCT TGTAACACAC
5161   ATGCATTATA TTCAACAGGA ATATATAAAT TTATAATTAT AATTTAGGAT CAACAGATGA
5221   CAAACCTTTA GAAGGTTTGT ATTTAACCTT AAAATATAAT TTTTAAAAA TTGGTTATAA
5281   AATTTCTAAT ACTTTCTTTT TTGTGACCTC AAGGGGAAAA TATAATCTT ATAAAAGTTC
5341   AAATGATTTA CAGAATACAA AAAGTGAATA GAGATGATGA ATGAATTAAA GGAAAGGATA
5401   TTGCTACATA GATTTGAAA TTTAAAAAGG GAAATTACGA TTGTTGATTT TGTGTTAAAC
5461   TGATCTGCTT TGTTCAAGAT ACCTTATGTA CCAAAAAATG ATTTTATCTC AGCCTCATAT
5521   CTCAGTAAAT TCCTGAGACA AACTTTAGTC CCTGGTGCCC AGGTGCCTTT GGTAATTGGG
5581   AGACCTCTAG GTTAGCATC CTCATCCACT CGCCCCAATT TAAATAGTCC TCCCCAGGGC
5641   CATTCAAGCA AGGGAGATGA AAACCTGCTC AAGAGTTGGA ATCCAATTGA AGCTACCGAA
5701   ATTCATTGCT CAATAGATAA TTTTCCCTGG AAGTAACTAG GGCTTTTGAA TATAATAGTG
5761   GGCATTTCAA AGTAGAAGGT AAAGTATTTT GGAGATGAGG AGACAGGACA GAGCTACGAG
5821   GAATGTCCTT TGCTCAGGGA CTAGGCTCTT AGCAGTACCT CTTAGGTAAG AACTGGTTAA
5881   CTGGCACCTT CTGTGTTTCT CTGAAGCTCC CTTTGCTTAG GGACTAGGCT CTTAGCAGTA
5941   CCTCTTAGGT AAGAACTGGT TAACTGACAC CTTCTATGTG TCTGAAGCTC CCAGAACAAA
6001   CTGCCAATGA AATTTGGATT TTTGGAATAT AGTTTCTTTT TTGTTGTTAC TTTTGTTTT
6061   GTTGTTTTTT TTTGAGAGTC TCACTCTCAC TGCAACCTCC CCTCCTATA TTCAAGTGAT
6121   TCTCTTGCTT CAGCCTCCCG AGTAGCTGGG ACTACAGGCG TGCACTAGCA TGCCAGCTA
6181   ATTTTGTAT TTTTGTAGT AGATGGGGTT GGTTTTTTTT TGAGACAGAG TTTCACTTTG
6241   TCGCCAGGC TGGAGTGAC TGGCACGATC TTGGCTCACT ACAACCTCCA CCTCCGGGG
6301   TTCAAGTGAT TCTTCTGCCT CAGTCTCCTG AGTAGCTGGG ACTACAGGCG CCTACAGGTG
6361   AACACGCCA CACCTGACTA ATTTGTGTAG TTTTATTAGA GATGGGGTTT CGCCATGTTG
6421   GCCAGGCTGG TCTCAAACCTC CTGACCTCAG GTGATCTACC CACCTCAGCC TCCCCAAGTG

```

Figure 9 (Page 2 of 74)

91/162

6481 CTGGGATTAC AGATGTGAGA CACCAGATCA GCCTCAGAAG ACATTTTCTA TTGGAAAGAG
6541 AAAACACTAT TAGCAACCTA TTAGTCTAAT ATTTAATACT TAATGTCTTC CTTAGTAATA
6601 AACCAACTCT CTACAACAAA GTGCTTCCTG GCTGCCTAGT CATTGATTCA TTCAGTTCAA
6661 CATTTTCTCA ATGCCCAACA GCCAAGTGTC TCCTGTATGC CAAGTTCTAT GCTGATTATC
6721 AGTATTTGAA TAAGAGGGGG TCTACATCTT AAGTACTGCT TAAGATGAAA GCCTCTAGGT
6781 TAACAAACTT AACACAATGT ATCATTCACT ACTAAATAGA CCGAATACAA AATCTTGTTA
6841 TTGGAGCCCA GAGAGAAGAA TTGAAATTCA AGTTTTCTCT CTCTCCTTTT CTCACTCACC
6901 ACAATAAGTC AGTTGCACCA AGTCTTGTAG CTCTTTACTG AGCCATGTTT TCACGTGTCC
6961 CTTTGTTTTA TTTGCCACAC CCTAAATAAA AATTGTACTG GCTTTTTTTC CCTGGGTTTA
7021 CAGTATTAAT ACATTGTCAA GATTTACCTC TTCGTGTAGA TTCCCTGGGG AAAATTACCT
7081 TTCTCCTTTC CCTTAAATTC TTCAGAGGTT AGAAAGCCAT TAGTAACATT CTGGTATGTG
7141 GACAAAGTTT ACCCATTATG TATGGATGTT TTAGTCTTTC CATTTTCTCG ACAATAATCT
7201 CTTAAGGAGG TGTGGTTATA GAATAGTCAG CTGTTATAAG TACTGTTTTT CTGGCCTTAC
7261 AACTTAAATT CTTTAAGCTG TTTCTTAGTT TGCTCATCTC AAAATTCGGA ATAAGGATAA
7321 AACCTATCTC TTAGATTGTT GGATTAAATG AATTAACATA CTGGAAGCTC ATGAAATGTG
7381 CCTGGCACAC AGTAGTGCCCT AATAAACCAT CTCTCTTATT CAGCCTGTTT TCTGATTTCA
7441 GAATCTACAC TTGCTGAGCC AGGTTCCTTT CATTTCAAGG TGAGCAAAAG CATAACAAGGA
7501 AGAGATGGAG GTAGGAAGAG AGTTAGCCCT AGGCCAAGGG AGCTGGAATC AAAGGCAATT
7561 TGGTCAGTGA ATAAAAAGGA TTCCAAGGCC CATAAGGCAA TTCTAACCTT AGGATCGAAA
7621 TTCTCGGACA TACAGGAAAT GCTGGGGGGG GGAAAATCCG GTCTTCTCAG CCCAAGAGCC
7681 ATGTGAAACC AGACCTTCAA ATCTGATGAT TCTCAGCCCA GCTGCCCAT AGAATCGTTG
7741 TAATTTAAAA ATACCCTCGG AAAATTCTAA TATGTGGCTA TCAAAGGTGA TCATTTGCTT
7801 TTATGCCACT TTGTTTTTAC CCAAATGGGA CATCCAACCC TTTTCCTTTG AGAGTAGTTG
7861 TAGGGAAAGG AGGGGGTGGA GGGAGGGAAG AGCGGAAAAG GCTGGATCCG CCCCAGCCG
7921 GTGTCAGTAT CTGGGAAGTG GGAGGCGCGT CAGCAGTAAA CAGCTTCTGC TAGGATTATT
7981 ATCTCCTGCC ACACACTCGG ATTTGAAGGC TCCAAACGAA ACAATGCAA ACGCTTCAGT
8041 GGAGTTCCAG AAGCGTTAGA CTAAACGACT GGGTCTGTTT GGCCAGTCTG AGCAGCTGGG
8101 CGCAGATGCA TAGGCAAGAC TTAGCCCGCC TAGACTTTTC TGCCCACTTA ATTCCGATCA
8161 AAGCAGAAAC CGGCCGGGCG CGGTGGCTCA CGCCTGTAAT CCCAGCACTT TGGTAGGCAG
8221 AGGCTGGCGG ATCACCTGAG GTCAGGAGTT CGAGACCAGC CCGGCTAACC TGGTGAACT
8281 CCGTTTCTAC TGGTGGCGGG CGCTTGTAAT CCCATCTACT AGGGAGGCTG AGGCCGGAGA
8341 GTCGTCTGAA CCCGGGAGGC GGAGTTTGTA TGCAGTGAGC CGAGATCGCG CCACTGCATT
8401 CCAGCTTGGG CAACAGGAGC AAAACTCCGT TTCAAAAAAG CAAGCAAACA AACAAAAAA
8461 TGCAGAAACC GAGATCCGGA AGAAAACCTC GGCGAGATTC ACAGAATCCA GGAAAATAGG
8521 TCTCTAGAAA TTTGTCCATG GTCCAGATC TCCATTTCTT GTGGGTGGGG CAGCTGTTAC
8581 CAGATCCCTA GAAGCAAAGG TTTTTTTGGG GGACCGTGTG TCACTGTTGC CCAGGCTGGA
8641 GGGCAGTGGC ACGATCTCGG CTTACTACAA CCTCCGCCTC CCAGGCTCAA GCGACTCTCC
8701 TGCGTCAGCT TCAAGAGTAG CTGGGAGTAC AAGGTATGTG CCACCACGCC CAACTTATTT
8761 TTTTATTTAT TATTTTTATT TAGTAGAGAG GTGTTTCACC ATGTTGGCCA GGTAGTGTG
8821 GAAGTCGTGA CCTCAGGTGA TCAGCCCCCT CGGCCTCCCA AAGTGGTAGG ATTAGAGGGG
8881 TGAGCAGAAA GCAAAGGTTT TTGAGTGGCC ACAGGCCCCA CTCTATTTCC TTTTCTGCCT
8941 GTAATGGCAA CCTAGACGCT TGAGCTTCTT AAAATACAAG AGTAAGTTGC ATGTCAGGCA
9001 CCGTTCTACA TTAGGGACAT TAGTCTGTTT TACAGACACC TTTCAACTCC CTGGTTAACT
9061 TTTAGGTAAT ATACTCTGCA CTTTAGCAGG AATGGAACCT ATAACCTCTA CAGAATTAGG
9121 AAAGTGAGGC TGCCTACAGC CTAAATTGAG AAAAAAATAG ACGGGGGACT AGTCGGAGGA
9181 CCAAACAAGG TTACCAACAC GTTAGAGTTT TGCCTTCAAT TTACATTTTT AAAGTAATCA
9241 CAACGAAGTG TTTAGATCAC GAGGCATCCC TGCATGTAAA CTGTTAGGCA CTAACATGAG
9301 TCGATCTTAC AAAGCATTAA CTAGAATATT TCTTTAGAGT ATGATAGTAC GTAACGTACC
9361 TACTATTACA TACAAACAGA CCAACCTTTA GTAACAGCGC TCCCCAAAAA CCGAAAAGCA
9421 GTAATACGCT TTGCTCAAGG TTGGCATAAA ATTAACCTAC CTTAGTGCCT TTTTCTCCTC
9481 TACCTACAAG CAGTGAGGTT AGCTCTTCCT TTGAAACGGT AGGGGGGGCTC TGAAAAGAGC
9541 CTTTGGGTTT GATAGCGTTT CCGGGAGCTC AGATACCTGT CAAATCACTT GCCCTTGCC
9601 TTGTGGTGAC TCTCGGTCTT CTTAGGCAGA AGCACGGCCT GGATGTTAGG AAGGACGCCG
9661 CCCTGAGCAA TGGTCACCCG GCCTAGCAGT TTGTTGAGCT CCTCGTCGTT GCGGATGGCC

Figure 9 (Page 3 of 74)

92/162

```

9721 AGCTGCAAGT GCGCGGGGAT GATGCGAGTC TTCTTGTTGT CGCGAGCCGC GTTGCCGGCC
9781 AGCTCCAGGA TCTCGGCGGT CAGATACTCT AACACCGCCG CCAGGTACAC CGGCGCGCCT
9841 GCCCCAACCC GCTCTGCGTA GTTGCCCTTTA CGGAGCAGGC GGTGCACTCG GCCCACCGGG
9901 AACTGGAGAC CAGCGCGAGA AGAGCGGGAT TTCGCTTTGG CGCGAGCTTT GCCTCCTTGC
9961 TTACCACGTC CAGACATTGC AATCAGACAA AAATCACCAA AACCAGCAGC CTAAGCTCAC
10021 GAGAAAACAA ACAAATCAA GAAATATGTA AAACATGGCC GCTTTTATAG GTAGTTCCTG
10081 GGGAGTAAAT CCGACTTTTT GATTGGTCGG TAGCAAATGC TAGTCAGATA GCCAATAGAA
10141 AAGCTGTACT TTCATACCTC ATTTGTCATAG CTCTGCCCAC GGATGACAAC TGTGTAGTTT
10201 GTCTTCCAAT TAACTAAGAG GTACTCTCCA TCCCTCATTG GCATAAAAGC CCTATAAGTA
10261 GCAGAAATCC GCTCTTTACT TTCGACACAT TTCTGGTGTT TTAAGATGCC TGAGCCAGCC
10321 AAGTCTGCTC CCGCCCCGAA GAAGGGCTCC AAGAAGGCAG TGACCAAAGC GCAGAAGAAA
10381 GATGGCAAGA AGCGCAAGCG CAGCCGCAAG GAGAGTTACT CTGTGTACGT GTACAAGGTG
10441 CTGAAACAGG TCCATCCCGA CACTGGCATC TCTTCCAAGG CCATGGGCAT CATGAATTCT
10501 TTCGTTAACG ACATATTTGA GCGCATCGCG GCGGAGGCTT CCCGCCTGGC GCATTACAAC
10561 AAGCGCTCGA CCATCACCTC CAGGGAGATC CAGACGGCCG TCGCCTGCTC GCTTCCCGGA
10621 GAGCTGGCCA AGCACGCCGT GTCGGAGGGC ACCAAGGCCG TCACCAAGTA CACAGCTCC
10681 AAGTAAACAT TCCAAGTAAG CGTCTTAACA CCTAACCCCA AAGGCTCTTT TAAGAGCCAC
10741 CCAGATACCC ACTAAAAGAG CTGTGGCCAG ACGCCAAATT TTATTTGGCG CGGGAGGGGT
10801 ATTAGAATGT AGGAACTGGA GAGGGGTGGG GACAAGTGTT GCAGCTTAGA GAGGGACAAA
10861 GGGTCCTGAA CCCGAAAGAA GCCAGCCATT AAAAATGGGT TTGGGGTCAA TTCGTTGTGC
10921 TTAAATTTAA AATGGGGACA AGCGGCCATT TTGCTAACTC GGCGTTCCCG GAAGAAACCG
10981 CAGGCTCGCT TAGGTTTCAG ACCCAGCTGT CTGTCCCTGT CTACGTCGCC AGGATCAACG
11041 GTTGCCGTAA TGTCTAATT TCGCCACCAG CTTCTAGCCA ATAGGCTGTC CTGTCATTTT
11101 AAATATTAAC CAATCGAGGG AAAGCTGTTT TGAGACTCTG ATTTACATAG CGGACCGGAG
11161 TGGGAACCTG GGCAGTAACT GCCTAAGGAA GGACTCCCCC TCTGTTTTTCG TGGCGCACAC
11221 CTTCTAGTA TACTGAAGGG TGTGTCTCCT GGGTTTCCAA CTGCCCCGGT AATAGTCTTT
11281 TAACCTAATA TCGTTCAGTT TTGATAACAA CACTAAGGCA GTACAGAACT AAAGATGTAA
11341 GCACTGCGCC AGATGTTGCT TCATACATCT TATTCTATTC AACTGGTTTA TTCAAGATTC
11401 AAATCAAATC AAATTTTGCT TGAATCCAG TGCTCAGTCA GCCATAAATG GTGTGTTGCC
11461 TGATTGAAAC TTAATAATCTC CGTAGGGGGC TTGTAACATG CAGAAAAGTT TGAAAGTTGC
11521 TTTAGGAGAA GCCAACTCTT AACTGCTGGG TAAATTGACA AGCCTTCGAA CACTGAACTG
11581 AAGGCCAGTA AGGACTAGGC GCTGGGTGGG GGAGAATGAA GAGGAGACGT CATTAACTT
11641 AGCACATACA CTGTGTCTCC TAGAGGACTC TCCCTTCCTA GACAACTGCA GGCCGCTTTG
11701 TGGCCTGGGA AATTCCACAT TCCCTTAAGT ATTTTACTCA TGGTCTTTTC CAGGTAAAGA
11761 TTTTAAGATG AAGGGTTAGA CGTAGTCTAC CTATCTTTTT ATTCAAGTCT AGAACACGTT
11821 TTTAGCACCT AGAAGTTTGC TTTCTCCATT AAAAACCAGG AATATACAAT AAATAAAATT
11881 AGTGTTAAAG CAGATTTTTA CAACTTAAA TACCATGTAA TTTAGGTTAC AGTTACTTAA
11941 CATAAGGACT GTGTGATCTT AAATCTGCAA TTTCTTTCAC ACCTGGGAAA TAACTAAGG
12001 CCTGTCTTTG GTGCCAGACA AGGCCTTATA CTTGAACACT GCTGTGCAAT CACAGGCTGC
12061 CTTGCCTAGA TAACTTATCT GAGAAATTCT GATGAGAAAT GAAATTTCCA GAGTCCCTCA
12121 CAAGTAAATT TTTTTTCTT TTTTTTTTTT TTTGAGACGA AGTTTCTCTC TTGTTTCCCA
12181 GGCTGGAGTG CAATGGCGCG ATCTTGGCTC ACAGCAACCT CCGCCTCCCG GGTTCAGGCC
12241 ATTCTCCTGC CTCAGCCTCC GGAGTAGCTG GGATTACAGG CATGCGCCAC GACACCCTGG
12301 CTAATTTTGT ATTTTATAGTA GAGACGAGGT TTCTCCATGT CGGTCAGGCT GGTCTCGAAC
12361 TCCGGACATC AGGTGATCTG CCCGCCTTGG CCTCCCAAAG TCCTGGATTA CAGGCTTGAG
12421 CCACCGCGCC GGGCCTAAAT GGTTTTTTTT TTTTCTATGC CTCTAATGGA CCTGGTCACT
12481 TATTCCTATT CAGACTGACC GCTCTCTTAC CTGCCAACTA ACTAATCAGT GTAACCAAAA
12541 TCTGCAAACA AAATTCAGTA TTCTTTCCCC GCCTTTTCCC CTTTCTCTTA CATAGATTAT
12601 GTTTTTGCCT GTGTTAGATG AAATAATTCT ATTGCTTGTT CTCTCTTCTG TACAAGTACC
12661 CAGTAAGCAA ATTATTAAC TCTTGGTCAT TTATTTCTGA ATTTTCCACC AAGACAGTGT
12721 TTATGTGAGT CATACAATAA GAACCAACAG AAATGTGTGT CTTGGAAACA GGTGTGCTAT
12781 CCCTGGACCC TTTGAGTTTT CTGTTCACTT TCCTTTGGCT TTTGCATGCT AAAAGTTTAT
12841 CGTCCGCGTT TGTGTTTTT GGTATTCTA ATTGGACTTG GCTGATTGGT TGCATATTGG
12901 TGGCAGTAGT AGAATTTGAA TTCTGGTTTT CTGGTCACAT CATTAAGTGA TTAGTCAGTG

```

Figure 9 (Page 4 of 74)

93/162

12961	GAGAGGACAG	GAAATCTGGT	TTATTTATTA	ACCTTTTTTT	GGGGTGTTTT	TGTTTGAAGA
13021	TGTTGATATT	CTCTGTGAGG	ACACAGGGTT	AGAGTTGGTG	TTTTTCTTTC	TGACTTTTACA
13081	TGGGATTTGA	TGTTTTGTGC	TTGTATGCCT	CTTCCACCT	TCCAAAACCT	GTCTTTTTTG
13141	AGTCCAAATA	GTTGTCGATA	TCTGCAAAAC	CAGTATTCCT	GTGTTAAGAT	GATATGAATA
13201	TAAAATGGCT	GCCCTGTTAT	AACTTTTGAC	TTTAAGAAAG	TGTTAGGACT	AACAGGAGAC
13261	AAAAAGGAAA	TCAAGGAAAC	CAAATGTCTG	GTCTCAATAA	CTGCTATGGC	AGAGGCTCTA
13321	CAGCTTATTA	TTAATTTTAG	TAATTTTACA	TTATTGCCCC	TTCACGTTCT	TTAAGTAAGG
13381	TTAGAGGACA	GAAGAAACAT	AATGTTGTTA	CAAATTGGAC	TATTGAGTCA	GGAAAAAATA
13441	AGAGTGCTTT	CAATATCTGA	ATAAAACAAA	GATTTAATAT	TTTCTAAACC	TTAACGAGTT
13501	TATTGTAAGG	GATGTGATGC	TGGAAACTAG	GAAACTAGAA	TTTTCTTCTA	AACTGAGAAT
13561	CAGAATTATT	CATATTCTCA	GCAGTGGTGC	CACCTGAGGG	ACTTCTGATC	TTAATTACAT
13621	ACTTTTATTT	CTTTAACTGA	TCAACATGCT	AAATAGATAA	CCTATGGCTC	TGTTTTTACC
13681	CACTTTAAAT	TCTGTTCTAT	TAGCACGGTT	AGCTTTCCCTA	ATTGGCAATA	AGATTGAGAC
13741	TATCTTTTTT	TTTTTTTTGA	GACAGAATTT	TGCTCTGTGG	CCCAGGCTGG	GGTGCAGTGG
13801	CACAATCTCG	GCTCACTGCA	ACCTCTGCCT	CCAGGGTTCT	AGCAATTTTC	CTGCCTCAGC
13861	CTCCCCAGTA	GCTGGGATTA	CAGGTGCACC	ACCACGCCCTG	GCTAATTTTGT	GCATTTTTAG
13921	TAGAGATGGG	GTTTCGCCAT	GTTGGCCAAA	CTGGTCTCGA	ACTCAGGTGA	TCCACCTCGG
13981	CCTCCCAAAG	TGATGAGATT	ACAGGCGTGA	GCCACCGTGC	CCAGAAAAGA	CTATCTTATT
14041	TTATGAATTT	AAATAATTGT	GAAATTATCC	ACTTAAGGGA	ATTAATAAAT	TATAATGTAA
14101	TCTTAAATTT	TAGTTGGCTT	ACATAAAGAC	TTAAAATACA	TCAATTTAAA	TAAAAACTCA
14161	TTTGTCTAAA	AAAAAATCAA	AAATTTTCCT	TGTGCTTTAA	ATGTGCTACC	TCTTTAAGTT
14221	CTAATTAAGA	GAAAAAAGT	TTAACTGTGA	GTTTCATTAG	TGGTCTTAGT	TAACAGCTTA
14281	AAGTATTTTG	TAAAAAAAT	ACTTCACAAT	TTTTAAATAA	CTTAAAAATA	TTAATACCTC
14341	TTTTATTAGG	TTTTTTTTAAT	AAGGAAAATA	TATAATACAT	CTAATCAAGA	TTATTTTTTG
14401	GACAAATTGG	CTTAATAATT	TCATTTTAAA	AATGGCTTCT	TTATTCTTAT	ACTGTAAAAA
14461	TAATATTAGC	AGAATATTAT	AGTATACACA	AGTTTAGGGT	TCATATTCTA	AAAAACAAAA
14521	ACAAAAGCTA	ATTTAACTTG	CATTTACTAA	ATTTCTTCCA	CTAGTTGTAC	TGGTTACATG
14581	AGTTAACATC	ACTTTATTTA	TTATTCTAAA	ATTGTAAATT	ATTCATTGAA	CCAAATTAAA
14641	TGATAATAGA	TAATGTCATT	TTTAAAAATG	GAATTAAATT	TTATGTTACT	AATTATAAGG
14701	ATTCAATGTG	TGAGCTTAAG	TACTGAGTTC	ACAGTGTATG	ATAACTTTAA	GAATTTAGGT
14761	GAATATTATT	AAATTGAGTA	AATTAATTCT	CAATCTTTGG	ATACCTGGAC	AATTTCTAAA
14821	TTGGAGGGTA	CAAAATACAA	ATCACAAGAA	ACAGTGTAGT	TTTATGCAAA	TAACATTTTT
14881	ACACAGTTTA	GAATAACCAT	TGATAAACAG	ATAAGAGAAC	ATATGATTGC	CTTAGAATAG
14941	ATACTGTTGC	TTTCGCCACT	TTAGATTTGT	AAATCATGTA	CTGTATACGT	GTGGGCGTAG
15001	AGGACCATGC	AGGTTTTTGA	TGACTGCCTC	TGTTTTCGTC	ATGCCATATG	GGGAACACAA
15061	TTGCCTGCTT	TGTTTAAGGG	CTATGGTTAA	TCCAAACAGC	TCTGACTCTA	TCAAGTACTA
15121	TAGCTACAGA	GAAACACAAG	TAAGCATTCG	AGATAATGAC	TACCTTGAGC	CTTTACTTAT
15181	TTAAAAAGTT	GTTACTGTTT	GTTAATGTGG	TACATTCAAT	TTACTATGGA	TTGTCACTCT
15241	AAAATAAGAC	TTCAATCTTT	TTCTTATTTT	TATATAGCCA	TGATTTATAT	TCATATCTTA
15301	ATGTAATAAC	CAATCTTCTC	TGACAACATT	ATAACAATGC	TGGAACCTCC	ATTTTCAGTA
15361	CTTCAAACAA	CAAATACTGC	TTTTTATACT	CAGAGCAGAT	GGATATGTGC	TTCCCAGTGT
15421	AAACACATTT	GGAATCTCAC	TGAGAAATAC	ACTATCACTA	AAAATACAGT	TCTGAGATTC
15481	ATTAAAAGAC	CTCCAGAATT	CTGGAAGTAG	GAAGTTTCCT	CTTCAAAGTC	TACAGAGGAA
15541	GACGAGGTCT	GAAATAGACA	GCTTCTTCCT	TCTTTTACCT	GTGGTATTAT	TCTGTTTTGT
15601	CCTTTTCTCC	ATTATCTGTC	TTTCCAGTGA	TGAAATTTTG	ATCTGGCCCT	CCCAAGTATT
15661	AAAAACAAG	CAAATAAACA	AATCTCAGTT	ATATTTTACT	AAGATATTGG	CATGCTAACT
15721	TTTTGCAGGT	TTGTAACAAG	GACCTTTATA	ACTTGACTAA	AAGTTCCTAA	ATAAGAATAT
15781	TTACTAGAAA	ATTTATTTCT	GCCTGTGGCC	CACATTTGAG	TCAAAATAAT	CAATTAGGAA
15841	AAATGAACCT	GTTTAACTAA	AGTTGGCCAA	ACTGATCTTT	GAGACCTATT	CATCTAAGAC
15901	AAGCCAATTA	AATTCCTTGA	GACAAATTTGT	ACTTTAAGGA	ATTCTTATAA	TATTTGTAAT
15961	TACCCCTATA	ACTTTTTTTT	TGCCCCACTT	CTGTGCTTCT	CTAATATGCA	GATTATTAAA
16021	TGTTGTTACA	AAGCCATTGT	CAAAAAACA	AAAAACAAAA	AACTAAACAA	ACTCACATGG
16081	TTAGACTTGC	TCCTTTATGA	GATATTTTTA	CCAAAAATGG	AGGAGTTGAA	AAACTCTGGT
16141	GCCAGAAATC	GTGAAGACAT	GGCCTACCTA	ACTTGGAAT	GTTGGTTGTC	AGTGGAAAAT

Figure 9 (Page 5 of 74)

94/162

16201	ACTACACAGA	GATAGCCATA	GTGCTGCACA	GCCAATCTTA	AGTGTTTCTA	GAGAATCACT
16261	AATTGTTTTCT	AGAGAATCAC	TAATTGTTTTT	CTTTTAAACAT	TCTTGTTTTA	TACAAGAAGA
16321	GAGTATCCAT	ACTAAACTCT	TTTCTACTGA	AAATAATGTG	CAAACATAAC	ATCCTATTCC
16381	TAGACAGTTT	GTAGTTTTTTT	TCTCCCATTT	CTATTTTATA	AATCATCTTT	TTAAAATACT
16441	TTGTTGAGTG	AAATCAGTCC	ATTGCTTGAT	ATACCTTGAG	CACAAGTAAA	TAGTATGCCA
16501	AAAATTAAAT	GTCTTTCAGT	CACAGTTTGA	CAAACCTCAAC	TACCCTGAGC	CTATAGAGTG
16561	GTAATAATTG	CCCTACTCAT	AAAGATGGGG	TGAAGATTAA	ATGAAATAGC	ACCTATAGAA
16621	CACTAGTTCC	AGACGTGGTA	TCATGCTAGT	AAAATGGCTG	CACAGCACTG	CTCAATGATG
16681	ACAAAAAGTG	AAGCTTCTGG	AGACAGACTC	CAAGTTTGAC	TCCCAGATCA	CCACATATAA
16741	GATGTGGGAC	TCTGAGGCAG	GTCATTTAAT	CTCTCTGTGC	ATTAGTATCC	TTCTCTATAC
16801	CTTTACAGTG	ATGGTAATAG	CACCTACCTT	CTAGAAGTAT	GTGAAGATTA	AAGATCCTTA
16861	ATGCATATAA	ACCACTGTGT	TTACTGCTGT	TTGACAAAT	TTATTTATAA	CCATCTTTAC
16921	GCTCCTAAAA	GGACTTGAAG	CAGCTTATGA	CTGAAGACTT	TGGTAGGAGT	TGGCCTTCTA
16981	TAAATTATAA	GAATTTTATA	AATTTATTTGA	TATGAAAATG	CCAGTTGATC	ATAGTATGTT
17041	TACCGGGGTC	CAACAGGTTG	AGAAAAAATA	CACTTTTTTT	CCCTGAACAT	ATGAAATTAG
17101	CTCTCTAGGC	ATATTCCTAA	GGACTTAAAG	AATGATAACT	ATCATTTCTC	TTAAATCTTC
17161	CAGATTTGGA	AGGATATATA	TATTCAGCAC	ATTGACAGAC	AATCCCAGTA	GTCCTAAATT
17221	AAAAGACATT	AAAAATTAGT	GAAACTTTTC	CTACCTTTAG	CCTGTGTAAT	CCTGGATGAC
17281	CAAGCATAAA	ATTAAATTGA	GTAGAGTATA	CCACTGTAAC	ATTTCTTGAA	AGGTATTCTA
17341	GGCTCTGAGT	AATTTCTTTG	GGGTCTGAAG	ATCAGTTTGA	CATATCCTCA	AGTATCATGA
17401	GTTTCATTATA	ATTAAGAAAA	AGGGAGTAAA	TCTGGAGAAT	GAGCCACTTT	CTTACTACTC
17461	CTTGACCTCA	GTTCTTTTTT	TCAGAGACAG	GGTCTCACTT	TGTTGCCCCG	GCTGCCAGGC
17521	TGGAGTGTAG	TGGCGCAATC	GCATCTCATT	GTAACCTCCA	CCTTCTGGGC	TGAAGCCATC
17581	CTCCTGCCTC	AGCATCCTGA	GTATCTGGAA	CCACAGCAGG	TGCACACCAC	CATGCCAAGC
17641	TAATTTTTTTA	AAAAGTTTTT	TGTAGAGATG	GGGTCTTACT	ATGTTGCCCA	GGCTGGTCTC
17701	AAACTCCTGG	GCTTAAGTGA	TCCTCCTGCC	TCAGCCTCCC	AAATTGTTGG	GATTACTAGT
17761	GTGAGTCACT	GTACCCCGCC	CCACTTCAGT	TCTGAGGAGG	AAAAAATATG	TAATAATAAT
17821	GGGACTTTGG	TTTGCTGATT	TAAAGATTCA	TGTAACCTTA	TCATCCAATG	CGCAATTTGT
17881	AGAATAATTA	ATAGAGACAT	CTGGTCTCAT	GTTTCTACAG	TTGCTCATGC	CTTGATAGTA
17941	GATCTCCTTG	CTGCTGGCTC	AGAAGGGTAA	AAGAGCAGAA	ATGATGGGGC	TTCTCTCATT
18001	CTATGAGGAA	ATAGACCTAT	GTAGAGGAGG	CTACCTGTGG	TAAAACCTTA	TCCTCATCAC
18061	TTAAAATTCT	AGGCTTATTC	TCTGACCATA	TCAAGTTTTT	AAATGGTAAA	AGAATTGGAT
18121	TCAAGAGAAA	TATGAATAAA	CTTTTGTTTT	CACTTTTCTC	CCTCCTCTCC	CCCCATTCTC
18181	CCTTCCTTTA	TTTTCTTGTC	CTTAGTTTTT	TTTTCACTTT	TTTGTCTACT	ATTATTTGCC
18241	CAAACCTAAC	TGTAGGCTAG	AACAAAAAAA	AATTGAAAAT	TAAAATGTGC	CCCTTTTGTT
18301	GTTAGACTTG	CTTAAACAAT	TGGGGTAAATG	AACCTTGGAC	ACTAGATTTT	AAAACACACA
18361	CATTTGAGCT	TCAGTGCAC	GAAATAAATA	TATTTTAAAC	AATTAATAAA	TAAAATTGCA
18421	TGTTTAAAAA	ATCTGCAGAG	AACAATACAC	GTTGTGAGAT	CTTGAATGGA	AGGAAAAC
18481	CTAGCCTCAA	GAGTGGATCA	AAGATGCTCA	GCAGGCAACA	GAGTAAGAGC	ATGTTGGAGG
18541	GTTTAGAGAG	TGTGCTCAGG	GTTCTAGGCT	CTAAAAATCA	GACAGTCCCC	ACGGCCTGGC
18601	CTTCGTCGCT	GTATCTTCTT	TATGAAAAAC	ACTAAGTCTT	TTTCCTCACT	GGATAAATTT
18661	TTATCCTTCA	AGTTTAGATC	AAATGGAACT	TTAGGACACT	GACTAGGTTA	CATTCATCTT
18721	TTAAGAGCGT	ACAGACATTC	AAGGGCTAGA	GGATGTGGGT	TTACTGCACA	GGCTCATTAT
18781	CCAACAGCTG	TGCTACCTGG	GAAACTTAAC	CTCTCTGTGC	CTTAATTTCC	TCATCTATAA
18841	CGCAGGGAGA	ATGACAGTAG	GTATCTCATA	AGGTGTGTTG	AACAACATAA	TGCATTGGTA
18901	TCTATTGTGT	AAAGTGCTTA	AAACACTGCC	TGGCACAGAG	CAAACATCCA	GTGAACCTTA
18961	GCCATCATCA	TTATCATTTG	TCTCAGAGTC	AAATACAATA	TCTCATATCT	GATAAATTAC
19021	AGAAAGTGAAT	CAATCACTCT	CTCTCTTTTC	TCCAGGGGGA	GACAACAGCT	TTTAGACATA
19081	TCTTTTCCAA	CAGTCGTCAC	TGCTGGACAC	TGTTTCATCT	TGCAAAATAA	CCAATGAAAA
19141	TGAGTGATCC	TAGAAGAAAG	TAAATGGAGG	TATTTTGAAC	AATCAAAGAA	GGACAAATGA
19201	ACACCTGGCT	GAGAAAAATT	AGCTCTTTTT	TCTATGCATA	AACTATTATA	AATATCTTCT
19261	ATAGAAATTT	ATGACACAGG	AAACATAAAG	ACAAAAATAA	AATAACTCCT	AGTATCTCCT
19321	ATTCTTTTTA	TATGTATATT	ATATATACTC	ATATTCATAT	ATACATATAT	CTCACATCAT
19381	GTATCATATA	TAAAAATAAT	TTAGGTGTCA	TGATATATAT	TTAGATAAAT	ATACTTAGAA

95/162

```

19441  ACTTTTTTAT GGATGTATAA TTTATGGATA TATTGATAAT TATGTATTTG TTATTGACTA
19501  CTTCAATTGA TTCCCATTTT TATGCATTAT ATTATAGATT ATATAGCTCA CACATCTTTG
19561  TACATAAATC TTTGTTCAAA TATTATTTCC TAAGGATAGA CTTCATGAAG TGGAAATACT
19621  AAATCAAAAG TGAAAAACAT TTTCTAAGGT TCTTAACATA TACATTGCCA AATTGCTATT
19681  CAGGATCATA CCAATTTATA ATCCCAAAT AATATGAAAA TTCCTGTTTT ATAGCACTCA
19741  TATTTACAAT AAATTTTAAA AATCACTGTT AACCTAATAG TCCTTCAAAA GAAAAAAAAA
19801  TTGAAATTAC ATTATTTTAA TGACTCTATT AGTGAGGGTC ATTCTTCCCA TGTTTCTTGT
19861  TAGCCATGAC CCTATAAGAA ATAACTGCA CTGCAAAATG ATAAACATGA TATCAATCAT
19921  TACATGGGAA GGCATATAT AAAGAATAAT ACCTTAGGTT AAGGCCACAT AAATATTTAT
19981  CAGGTGCCTT TTCTGCGGAG GACTCTGAAG GGATACTAAA CTGCATTTAG CTGCATGCAA
20041  CTGAAATTAC TTTTACCTAC ATTGTCTCTT ATAAACATTA TAACTACTCT TTGAGAAAGT
20101  GTTTACTATG GACTGAATTG TCTCCCATC CCCCCAATT CATATATTGA AGCCATAAAC
20161  CCCAATATGA CTCTATTCC TATAGAGACT TATAAGAGGT AATTAAGGTT AAATGAGGTC
20221  ATTAGGATGG GTTCCTAAT GGATAGGATT GGTGGCCTTA TAAGAAGAGG AAGATTCTGC
20281  ACTTGGTCTT CCAAATTAAA TAATTTATTT AAAAGAAAAA AAAAAAAGA GGAAGAGAGG
20341  GAGCTCTGCA CATATACTGA GGAAAGGCTA TGTGAGCTCT CACAGTGAGA AGGTAGCACT
20401  CTACAAGCCA GCAAGAGAGC CCTCACCAGA ATCCAGCCAT GCTATACCTT GCTCTGAGAC
20461  TTCCAGCCTC CAGAAGTGTG ATAAAATTTT GTTGTTTTAA CCACACAATC TATGGTATTT
20521  TTTTATGGCA GCCCAAGCCA ACAAAGACAG CATCATTGCT GTCACTTACA GACAAGAAAA
20581  CTAAGACTAG GAGAGAGAAA AGTTAACTT GTCCAAGGTC ACAAAGCCA GAAACAAGTG
20641  AGGTGAGAAG TTGACCTTGT TCTCCTCAAT CCAAGGCCAG GACTCCTCCA CTCCACATGT
20701  AGATAGCCAC CTCACAGTCA ACAGCCAAAT GTCCACACCC CAGAGTCAGC ATTAGACCAA
20761  GATGTCTTAC CAGGAGACAA ATGCCTCATC TTGAATAAAT ATGTTCTAAC AACTTACCCA
20821  TGTA AACAT TGAATCTCAT GAGAAACAAA AATGCAAAGT ATGTAGAAAA CTATGTTTAC
20881  CACTTAACTG ACAGTGATAA AAAGCTTAAT GATATCCTTA TAGTCTTGGA GGGGTTTGTA
20941  TATGTGGTGA AACAGGTGCT CACGCACTGC TGATAGACTG TAAATTGGTC CTAGAGAGAA
21001  AAATAAATAA ACTGGAAGGA GTTATGCTGT ATGTTTACTT TTTTATGGA AACATATGAT
21061  ATACCTGGAA ATTGATTGG CCATGCATCT ATTTCTTCAA TGGGTATGCA CAGTTGAGCT
21121  GTTCCCATGC ACCAGGCACT GTAATGGGAC AACTGCACAT GACAGTCAA AATCTCAGTC
21181  TCATGAAGTC GACATGCTCA TGGAGAGGTG CTACCCACTA AACTAATATT TGTATATCAA
21241  TTATGGATAC ATTGGGCCAC ATTTACAGAA ATTCACTTAC AGTGGGTAC CAGAAGGGAT
21301  TTTTTTTCTT GATTGGCAAG AAGGCTAGGC TGTTTTGTG GGGGCTGGCA GGAGCTGTCT
21361  AGGCTGCCCA AGTATGCAGG TCTCTTCTAT CATCCTGTGT TAACCATCTT CCATGTATCT
21421  TTCAACCTCA TGGTCATCTG CAGCATGTCT AGGGGTCATA TCTATGTTCC ATGCAGGAAA
21481  AAAGGGTAAA GGGAAAGGGA AGTAGGCATG TACCATTTTA ATGCACACCT TGGTTTTTCAG
21541  AAAATTTAAG AAGAAAGACT TTCTGCTTTT CTCTGACTAT TCTGTATTCT GGATTACAAC
21601  GCAACAGAAA CGTCACCTTA AATTCTAATG TTTTCTCTC CTTGCTTTCA AAAACTGACT
21661  CATTAACTC CACGTGGCTT GGAAAAATTA TTTTCAATCA CCAGTAATGA GCTGTTTATA
21721  GAAATGTTTT GGACATCAAG TCTGTGTTGT TAGCATTATA CATGTTAAGC ATTGAATAAA
21781  AAACAACATG ATGTGGGTAC ATTTCTTTTAC TTACATATAA GTACTTATAT ACTTATAGCT
21841  GAAAAGAGAG GTTGAAATGT CAGGTGGAAC AGAAATAAGA TTACCTAGAT GTTTCTCCTA
21901  TGGGTGATTT TCAGCTATGC TGATCTTTCT TCTGGGTCAG GTACTCCCAG AACTTCCTAA
21961  TTAAATGGTG GCCCTGATCT TAGTTCCTCT CTCTCTTAG ACATTTTCCA GGACTACAGA
22021  AGATGTGCAG TTTATAAATG AGTAGCAGAA ACCTACTGAA CAAATTATTC AGGCTCATCT
22081  GAACAGAGAG GACACCTTCT CTGCTATACT CTCTCAGTGA TTTCCCTGCC TTGGGGTCAA
22141  TTATTGTCTT GGACATTGAT TTAAGCACAT AATAATTGTT GTCATTGCTT ATGTTTGGAT
22201  TTCATCTCCC AAAATAGATG GTAAATTCTT TAGTTTAGAG ACCAAGTAAT ACTTACAAAA
22261  AAATTTTGTG TGTGTGTGTG TGTTTTTTCT GTGTCTCTCA GCCCTGTAAT AGCATCGTAC
22321  TTACTTGTGT TAGATTTTAA GAGACAACCT TTACAAAACA TGGAATTATC TACATACCTT
22381  TTCTACAAAA CAGACAAAT AAATACTCAG TAGTTGAACC AAAAAAGCA GTTCAAATAA
22441  AATACTTGAA AATGAAGAAA TCATTTGAAC AGAGTTAAAG TTAATCGTAA AATAATGTCT
22501  GTAAAAATTA TTGCCAATCA AATATAAAGT TCAAAAATAG TGCTTGAAAA AGGAAGAATC
22561  ATATGAAAAG GGACTIONTCA TTTTAAAAAT GTTAGATATC AGGAAAAGCC AAGAAGTGAG
22621  TATGGTAAGA GTGCTGTCAA GTGAAACCCT GCTAATCTCA CTGAACATGT AAAATCTGT

```

Figure 9 (Page 7 of 74)

96/162

```

22681 AGATGCCTTT ATTTTATTCA CTCACACACA TATGTAGAAA GAGAAATATA TGGTAAACAT
22741 TAAAAAAAAC AAATTAGAAAT GTAAAAATTAA TACTTTAAAA AATGGGCTGT ATACTTTTCT
22801 TATCACCGGA GATAAGAATT TATTATTTTT AAAATAAAGT TATTTTCTCT GTGACTGTCTT
22861 CCATGACTTT GCTACTTAGA AGTTAGAGAT GCCAAAGTTT ATCTAAGAAA ATGTTTATGG
22921 AAATATTATT TCAATAATGA ATGTTTAGAA GACTGAATTT CCTGACTGGG CACAGTGGCT
22981 CATGCCTGTA ATCCCAGCAC TTTGAGAGGC TGAAGAAGGA GGATCGCTTG AGTCCGGGAG
23041 TTCAAGAGCA TCCTGGGCAA CACAGCGAGA CCCTGCAGCA AAGTAAAAAG AAAAAAGAAT
23101 TGAAAAAGGA AGACTGAATT TCCTTTGGGC AAGTCATGTG ACATTCCTGT GCCTCAGTTT
23161 CTTTCATCTAT AAAGTTAATT CCTACATTTT TGGGGAAGGG AGAGAAAAAC TTAGGATAGT
23221 GACTGGCACA GAAGAAGCAC TATATACTAT ATATATGTGG ATATCATTTG TTTTATGGT
23281 ACCATTTAG CTATCTAATG CAAAATATGA ATCTTTTTTT TCTGGGTCTT AAATTATGGA
23341 ATGTAAAGAA TTTCTAAATT CTCTAATTCT GTGTTAGTTT TAAAGCAATG GAGTAACGTA
23401 TCTGTCAACT TGTAATATA AGGATCAACC TGATCCACAA TTTGACCCCT AGCCACTAAT
23461 ATTTAATAGT ACAACACTCA GAAATTATCA AAGGTCAGAG AAGCCAAACA AATGTAAAAA
23521 CATACAGGTG CTCAGAAAGA TGCACCTGTA ATCTCTCTAA GGAGAAATAT TTTCCAAACT
23581 GAGTGACACG GTGCTTTAGT GAGTTGTGGA ATCAATCTCA TGATTTCCAA CCTAGTGTTT
23641 TTTTAAAAAT GAACTAGTCC ACAGTAGAAT ATACTAAAGT GCTGGTGCTT AAGATAGTAT
23701 TGTTTTCTGG AAAAAAAAAA AAAATTTTTT TTTTTTGAGA CAGGGTCTCG CTCTGCCCCA
23761 GGCTGAAGTG CAGTGGCACA ATCATGCTCA CTGCAGCCTT GACCTCCTGG GCCCACTGTA
23821 TTCTCCCACT TCAGCCTTTT GAGTAACTGG GACCACAGGT ACGTGCCACC ACACCGGGT
23881 AATTTTTTAA TTGTAGAGAC AGGGTCTTGC TATGTGCTTA GGCTGGCCTT GTGAATCCTT
23941 GGGCTCTAGT GATCCACTAG CCTCAGCCTC CCAAATTTAT GGGATTATAG GCATGAGCCA
24001 CCCTACCTGG CCTGTTCCCT GAATTTTTTT TTCTTTCAGG TGTTTGTGCA TATGTGTGTG
24061 TGTATGGGTA TAACAGAGAG ACAGAGAGAA AGAAACTTTT CTATCACACT TTGCAATCAG
24121 AAGTTTGAAG TCTTATCTTT TGGCTTTTGT TTCAGAAATA TTTCAAATGT AGACTCTCTC
24181 CTTTACCACA CTGTCCCCTT AGGCAAGGTC TTTGCCATTC TTCTGAGACT ATTGCAACAG
24241 ACTCCCAACT TCTGACTGTG GGCCCTTCTC AAAAATGATT GTTTATGCAA TAAATCTAAA
24301 CCCAAGACAA CTACAACAAT ACAACAAATT CTCTGCTTAA AACTTTCCAA TGTCTGCCGG
24361 GCGCGGCGGC TCACGCATGT ATTCCCAGCA CTTTGGAGGC AGAGGCGGGC AGATCACTTG
24421 AGGTGGGGAG TTCGAGACTA GCCTGGCCAA CATGATGAAA CCCCATCTCT ACTAAAAATA
24481 CAAAAAATTA GCCAGGCATG GTGGTGGGCG CCTATAATCC CAGCTAATTG GGAGGCTGAG
24541 GCAGGAGAAT TGCCTGAACC TGGGAGGTGG AGGTTGCACT GAGCCAAGAT CACACCATTG
24601 CACTCCAGCC TGGGCAACAA GAGCAAAACT CTGTCTCAA CCAAACCAA ACAAACTTC
24661 TAATATCTAC CAAATGTTTC ACACAAGTAT TTGGGGATCT TCACAAATGG CCTTATGGA
24721 GTTTTCCTTT GCTGAGACCC TATGCTCTGG CCACACTAAA CTCATTCAGC ATCCCAGAAA
24781 GGCTCAGCC TTTGTGAGCA AGCTCTTATC TCCAGGCCTC TCACAAAGAC CTGTTCCAGT
24841 AGAAGCTCAG GGGAGCACAC TGGACATTAT TCCAACAACC CTTTCCCCAC AGCTATGCAG
24901 CCAAATCTGC CAGCTCAGTT AATTAATTAA GCAATTCAGA GATGAGGGTC TGCCCAGGCT
24961 GGAGTGCAGT AGCTGCGACC TCAAGCTCCT GGGCTCTAAG TGATCCTCTT CAGTCTACCC
25021 AGAAGCTGGG ACTGCAGGCA TGTGCCACCA CACCCAGCTA ATTTTTTTTT TTTTCAGTAG
25081 GGACCAGGCC AACCTAGTCT TGAACCTCTG GCCTCCAGCC TTCCGAAGTG CTGTAATTAC
25141 AGGCATGAAT CACTGCGCCC AGCCAACCCG CCCAGTCTTG TTAGACATGG GGTCTGTAGT
25201 TTCTAGTAGG TTCTTGAGTC TAGGGTTTCT ACCTCATGTT TTATAGTTAA TTTAGGGGAG
25261 GGA CTGTGTC TGTTTATCTG GGGATGTAGG GGTGGGCAGG GGGATAGAGG GGACTTCAAT
25321 TAATGAAACC AGAAGCAAAA CTCAGTTGAG GACACCGGTC ATGAGAGTGG CCTGATTATG
25381 GCCAATCTTA CATAATGTGT GAGATCTTGA TATTACCCCA TCCTTGAGAG TCCTCTATAA
25441 AGCTACAGGG ACTTGGGAGC ACCTTTAATT ACAGACAACC CATGTTCTCT TGGATTATGA
25501 TTTATTAGAT TGCACATGCC TAAATAAAGA CATCCTCTGC AGTCTTTTGA CAATTCTATA
25561 AGCATCTTCT GACTCCGCAA TTAGACAGCT AAGAGATCTG TGTTACTTCC CTCACATATA
25621 TAAATAATTT TAAATAAAAA TCATGGCGTG AATAATTTCT TTCTCTACC GATTTGAAGC
25681 TATCCATTTG GAAGACCACT CTGAAGAGAT GAAATAAGTC TTCTGCCAAA GATTACTTAT
25741 TAATTTACAA GGAAAAGGGG AAGTTTTGTT CCTCTCCGTG AATTTGATTG AAAATCGAGG
25801 GCTTCTCGA ATAGTTTTGG CATCCAGGGT CATTTTTCAT TAAAAAGAGA AAAGTCATGT
25861 CAAATATGAA TTTCCGCAGA TTATTCAGCA CTAGACCCTG GGAGATTCTG TAAAGAGGGG

```

Figure 9 (Page 8 of 74)

97/162

25921	TTTTGTTATA	CTCAACTTTT	CCGGGTAAAA	CAAACACAAA	TACTCCTCCT	CCAAGGGGCG
25981	GGGGCGGTGC	CTAGGTGATG	CACCAATCAC	AGCGCGCCCT	ACCCTATATA	AGGCCCCGAG
26041	GGCGCCCGGG	TGTTTCATGC	TTTTCGCTGG	TTATTACATC	TTGCGTTTCT	CTGTTGTTAT
26101	GTCTGAAACC	GTGCCTGCAG	CTTCTGCCAG	TGCTGGTCTA	GCCGCTATGG	AGAAACTTCC
26161	AACCAAGAAG	CGAGGGAGGA	AGCCGGCTGG	CTTGATAAGT	GCAAGTCGCA	AAGTGCCGAA
26221	CCTCTCTGTG	TCCAAGTTGA	TCACCGAGGC	CCTTTCAGTG	TCACAGGAAC	GAGTAGGTAT
26281	GTCTTTGGTT	GCGCTCAAGA	AGGCATTGGC	CGCTGCTGGC	TACGACGTAG	AGAAGAATAA
26341	CAGCCGCATC	AAACTGTCCC	TCAAGAGCTT	AGTGAACAAG	GGAATCCTGG	TGCAAACCAG
26401	GGGTACTGGT	GCTTCCGGTT	CCTTTAAGCT	TAGTAAGAAG	GTGATTCCCTA	AATCTACCAG
26461	AAGCAAGGCT	AAAAAGTCAG	TTTCTGCCAA	GACCAAGAAG	CTGGTTTTTAT	CCAGGGACTC
26521	CAAGTCACCA	AAGACTGCTA	AAACCAATAA	GAGAGCCAAG	AAGCCGAGAG	CGACAACCTC
26581	TAAAAGTGT	AGGAGCGGGA	GAAAGGCTAA	AGGAGCCAAG	GGTAAGCAAA	AGCAGAAGAG
26641	CCCAGTGAAG	GCAAGGGCTT	CGAAGTCAAA	ATTGACCCAA	CATCATGAAG	TTAATGTTAG
26701	AAAGGCCACA	TCTAAGAAAT	AAAGAGCTTT	CCGGGAGGCC	AATTTTGAAA	GAACCCAAAG
26761	GCTCTTTTAA	GAGCCACCCA	CATTATTTTA	AGATGGCGTA	ACACTGGAAG	CAAGTTTCTG
26821	TGACAGTTAT	CTATAGGTTT	AAGTTGTGAT	GCAGCTGAGT	TGAAAAGGCT	TGAGATTGGA
26881	GAATTAATTC	AGGCCAGGCT	TCAAGACCAT	CCTGGGCAAC	ATAGCCAGAC	TACCATCTAT
26941	ACCAGGGGTC	CTCATTCCCC	CGGCCACCGA	CCGGTAACCG	GTCCCTGTCC	ATTGGCAGTT
27001	ATGAATTGAG	CCGCACAGCT	GAGGGGTGAG	CGAACATTAA	CCAACCTGAGC	TCCACCGCCT
27061	GTCAGGTTAG	CTGCAGCATT	AGATAGATTG	TCATAAGCTC	AAACTGTATT	GTGAATGGCA
27121	CATGCAAGGG	ATCTAGGTTT	CAGGCTCCTT	GTGACAATCT	AATGCCTGAT	GATCTGAGGT
27181	TGGAGCAGTT	TTAGTCCGGA	AATCATTGCT	CCCAGCCCCCT	GCACCCCTTG	GTCCGTGGTA
27241	TAATTGTCTT	ACACAAAACG	GTCTCTGTG	TCAAAAAGGT	TGGAGACTAC	TGGTTTTACA
27301	AAAAAGTAAA	TTAGTCAAGC	ATGGTTGGCA	CGCTCCCTTA	GTCCCTGCAC	CCAGGCGTTT
27361	AAGGATACAG	TGAGCTATGA	TGGTGCTACC	TCACTCCAGC	CTGGGTGACA	GCGAGTCAGA
27421	CGTTGTCTCA	AAACTTAAAA	AAAAAAAAG	TTAAAAACAGA	AAAAGGGCTT	CTTGTCAGAG
27481	ACTGCCGTAT	ATCTAGAGGT	CCAGGAACTA	AAAAGTCTGA	TGTCCAATCC	TGAAAAGCTC
27541	GATGGTGCAC	TAGAGGAGGC	TTTTACATGT	AAGAGCATCT	AAGTTCTGGA	AATGCCAGTG
27601	TCAGGGAAGG	GAAGTGGAGA	GCAATTTGGC	ATCCAAACAT	AACTTGCTGA	TACTTTTTTT
27661	TTTTTTAACA	CAAGTACTAC	ATTCTAGTCT	TTCTGTGGTG	TCATTGTAAC	TATTGTTTCT
27721	TAATATGCTA	TCCACTGACT	TCAAGGGATC	AATAAATAGG	AATCAAGGTG	TCCCAGAATA
27781	TGGATTAGGG	GAGTTTTTTT	TTTGTGTTG	TTGTGTTGT	TTTCATCTAT	TCATTATCCT
27841	GTAGCTGAAA	TTTAGAATTT	TCTTCCATTG	TGTGTGACTG	ATAGAAATAA	CAAATTTGTA
27901	GGTTATAGTT	GTGCAAGAA	TCTGGAAATC	GTGCTTGCTT	ATTTCCGAAG	TACTATTAGG
27961	TATATCAACA	AAAACACACA	TATTACGGTC	AAGTGGTTTG	ATAATTATTT	TAATATTATT
28021	GGTCTAATAC	AATTGTAACC	CTATGAATTA	CTTTAAGTAT	CTTATTTATG	AAAAGAATCT
28081	GTAAGTTTCA	TCAAACCTACC	AGAGCATACC	GAAGACTGAA	AAATTTTAAG	AATCCAAACC
28141	TTAATGGAAA	TGTTGGAGGC	TGCCCCAATTA	GGTCTGAAT	TCCACCTTCC	TGAATCACAA
28201	ACTTGTTTTA	ACTCTCAGTC	TGAGGTAAAC	TACGTTTCTC	TTTAAACAGA	CATAGTTTAA
28261	TTTTCCTTTG	ATTTTTGATT	TAGTATTCTT	ACTGATCATC	ATAAATAACC	AATGCTAATG
28321	TTAGTCTACT	TTGGACCATG	GTATTTCCAG	AAACTTTGAA	CAAAGTCCCC	TGCAAAACTA
28381	TGCATTGCAT	TATTTACAT	ACATTTATGT	TTTCCAGACG	GTTCAATAGT	ACCTCACTTT
28441	TCTGAACTTA	TTTGATAGT	TTGGCATCTT	TTTAAAAAAT	GTGTCCTATA	ATGAAAGGTT
28501	GTAAACATTA	TGTTTTAAAT	TTGTATAGAT	AAAAATCAACC	ACAGACCTTT	CCTTGCTTGG
28561	ATGTAATTGC	CATTGTTTCC	CAATGAGTTC	GGAATTACTA	GGATTGTGCA	AAAATATGCC
28621	TCACTTGCCCT	GACATAGCAG	AGAGCCATTT	TGCCTAAATG	CTGTGCCCAG	CAATGGACTG
28681	TCACCAGATT	CTCATCACAT	ACAGTGAGGA	TGAACAACTA	GCCTCTCCCA	GCAGCTGGCC
28741	GGTCTCTCAA	TAATATGGGA	CTCCCTCAAG	ATGGCTTCCT	GCACCTTTGC	TCCTCTAGCC
28801	TTGTATGTAT	ACAAGGCTAG	CATGCCCTGGC	ATACATAAGG	TTAAAAACAA	AATCAATAAG
28861	TTATGGTTCT	TCCTCCAGTT	CTGGGGATTA	TTAGACCACT	TTTTTGTTTT	GTTTTGTTTT
28921	GGATGGAGCC	TCGCTCTGTC	ACCCAGGCTA	GAGTGCAGTG	GCACAATCTC	GGTTCAGTGC
28981	AACCTCTGCC	TCCTGGGTTT	AAGCAGTTCT	CTGGCTCAGC	CTCCCACGTA	GCTGGGATTA
29041	CAGGTGCCCC	CCACCACGCC	CAGCTAATTT	TTGTATTTTT	AGTAGACGGG	GTTTCACCAT
29101	CTTGGCCAGG	CTGGTCTTGA	ACGCCAGACC	TCGTGATCCA	CCCACCTTGG	CCTACCAAAC

Figure 9 (Page 9 of 74)

98/162

29161 TGCTGGGAAT ACAGGCGTGA GCCACCGCGC CCGGACTTAG ACCACTTTGT TTTGGCCAAT
29221 AGGACAACAG CCATAGAACC CTCCGCAAT GAGAGCTTGT CCCTAAAGAT GCTTTATTTA
29281 CATAGCTGTG TGCCGCATGA GCCAAAAGGT GATAACCTTT GTTCAACACG CGCCTCCAGC
29341 CCTTCGGTTA AGTCCAAAGT ACCATTCTTA GAATGCTCTA AAATACATAA TTTTTTTTTT
29401 TTTTTTTTTT TTTTGTAGGA GTCTCTCTCT GTCTCCAGG CTGGAGGGGA GTGGCGCGAT
29461 CTCGGCTCAC TGCAATCTCT GCTTCCGGGC TAGCTGGGCC TACAGGTGCA GACCACCACG
29521 CCCGGCTAAG TTTTGTATTT TTTTGGTAG AGGGGGTTTC ACCATTTTGG CCAGGCTGGT
29581 CTCGGATTCT TGATCTCAAG TGATACACTA GCTTTGGCCT CCCAAAGTGC TGGGATTACA
29641 GTCGTGAGCC ACTGCGCCCA GCAAAATGCT TTTTGTGGAG CCAATCACTT TATTAGCGCT
29701 TACCTCTCTA TGCCTACTTT ATGCTTTGAA ATTTTGTAC AGTGGGGCCG GTCATGGCAA
29761 ACACAATTCA TTCTTATGCA GGCTGTCACG GTTATTTCTG TCATCCAAAC TCATTCTCGC
29821 AACGCATTTT AGCTCTTTAA ACGACTTTGT GAGCGGCCCT GAAAAGGGCC TTTGGGTTTT
29881 TTTGTTTTTG TTTTTTGAAG TTCTCAGGAG ACCGCGTATT CTTAGATTCA GCCGCCGAAG
29941 CCATACAGAG TGCGCCCTG ACGTTTCAGG GCATATACTA CATCCATGGC TGTGACAGTT
30001 TTGCGCTTGG CGTGCTCCGT ATAGGTGACG GCGTCTCGAA TAACGTTCTC TAAGAAAACC
30061 TTAAGCACAC CTCGAGTCTC CTCATAGATA AGACCGGAAA TCGCGTTGAC GCCACCGCGC
30121 CGAGCCAAAC GGCGGATAGC CGGTTTTGTA ATGCCCTGGA TGTTATCCCG GAGCACCTTA
30181 CGATGGCGCT TAGCACCACC CTTCCCCAAG CTTTTCCGC CTTTGCCCG ACCAGCATG
30241 ATTCTATCG CAGTGGAAGG TATGAACTGA AACAGTTCCT TAAATACAAA CTTGGCGGAC
30301 CTGATTGAAA ACAACATGAG TTGGCGCGGT TTTTTTTTTT TTTCAAATTT GGTCAACGAG
30361 TGGGTGGAGC AAGAAAAACT GTTTCATTAT GGTTCAATTG TTTGATTGGC CAGTGACAGC
30421 TTGCTCTTTG TGGGAGTGGG AGGGTGTGTT CAAGTTGAAT GCGCTGTATT CCTGTCAGCT
30481 TAATGACGCT AAGCATAGCC CCATTCCACA TTTCTTTTTA TTTCCACTTG CTAATAATA
30541 AATTACGGAA TAGTTTATTG GGGAACATAC AAATAATGTT TAAAGGAGGT CAGATTTATA
30601 GGTCAAGGGA TTTACCCTCC CAATCATTTT AATATTTTTA TTTAAACCAG GCATTTTGAT
30661 GGCCTTCTCT GTGCTGGACA AGGTATAAGT TTGGCTATGA AGTTTCACTC CTAAAGACCC
30721 TATGTTTTTG GAAGGCAAAA AGGTAGCCAA ATAATTGCAA ATTAACCT CATAAGTGCA
30781 AACTTCTTCC TCGTCACTTT CCCTATCTCG ATTCAAATAT TTGTTGAATG ACTCATTTTT
30841 CTGCAAAAGT CTGAGAGAGA CAGGGAATAT AAACCTAAGT CTGGATAATA TGTTTTCCCG
30901 GGACGCTCTT CCTGGTCTGC TGTGCCTGTT TGCTGTGCCT GAAATTCCAA AACTCTTCC
30961 CTTCCCTCCG TTTTAAATCC CTTTCAACT TGCTACAGCT TTAGAGAAAA GAACATACGT
31021 TTTGTACAGT TGGGGATTAA TTGAAGTGTA GGGCTAATAC TTGATTAAGG TCATTACAAA
31081 ATCTACAGGG TCTTCCTCTG GGAGGTTTTT GTGATAAGAT TATTGGTGT AAAATAAGGC
31141 TAATCCCCTT GAAAAATAAA TAGAATAGCA GAATTGGGTC TGAATGTGGT TTGAAGAAAG
31201 GGACTTCTCA ATTCAAAATT TTATTCTTAG CTTCTGTGG GAGCTTTCCA GAATGCCCAT
31261 AAGATCCACT TTTGTTTAAA AAACAAAAAC AACCACCC ACCACTCTCT GGTAAATAAA
31321 TGAATTTCTA TTGGGAATAT TTAGAATGGG GCTGTGGCCT GTGAGAGACA TTATATAGTA
31381 ACCTCAGACT TGCTCACATG AAGAGAAGAA ATCCAGGAAT GGAGAAAAAA GACCCAGGAA
31441 AGGCCAGAAT GCTCTACATG TCATATTGTT TGTATCACTT CTGAAATAAT TGATTACATT
31501 CTTCTGCCCC AAATTGAGTT CTTAGGTTCT TCCACTCACT GTCCACATGC CACAACACAG
31561 ACCTTATAAC TAGAGACTTA GCTAGGAAGA AATGTCAAAC ATTACAGAGA AAAAATGCAG
31621 AGTCTGAGAT CATAAGTAAA ACTCTGAAAT CTCAACATGC CTTTAAATTC ATGAAAATAA
31681 AAAATATAGC AGCATATGCA ATATGATAAT TCTCTGAAA CATAACATCAT GTGAACCTACC
31741 CTGGAACACA TCTCGCCAAG TGCCATCTTC ATTTTAAACA GAGGTCTAGG ATGCCTTTCC
31801 TTTATTTTGC CTATTATATC ATTTATAAAA CCCCATTTTT ATTTTGATAT TTTATTTACT
31861 TTCTATTTCC TGCTCCTAAT ATCTCCTTTC TAACTTTTC TCAATGACAG TGAATCAAAA
31921 ACAATGAATG TCAGAACAAA TATTTAAAGG ATCTGTACAT GTAGATATAT ATATTTAAAA
31981 TGGATTCTTC CACTCTGGGA AGAATTGAGG CATACTCAAT CTTATGGTTA GGGAGAGATT
32041 AGGCTCACTC GCCTAATCTG TATGGCTTCT CGTTCGCTTT CCATTTTACC TTCCTCTCAC
32101 CCATCAGATC AAACCTATTC ATTGAACAAG AGACCTAAGC CCTTCAGATT AAAACTCTGC
32161 AAACAAGTTG TGGTTGAGAG GATACATGAA GCATTCAAAC AAATAAATCT ATGATATTAA
32221 TCAGAGGTTA ATCTATGATA TTAATCAGAG GTTAATGCAG TGGCTCACGG CTGTAATCCC
32281 AGCACTTCAG GAGGCTGAGT TGGGAGAATC GCTTGAGCTC AGGAGTTCAA GACCATTTTG
32341 GGCAACATAG CAAGTCTTCA TCTCTACTTA AAAAAAATA ACCAGAGGTG TTATGAAAAAT

Figure 9 (Page 10 of 74)

99/162

```

32401 ATAAATTGTC CAGAACTACC CTCCACAAAC TAACTCTCTC AGAATATTTCG ATATGAGGAA
32461 TGAAATATGG TGTGTGTGTG TGTGTGTGTG TATGTGTGTG TGTGTGTGTG TGTATGCACC
32521 TATATATGGC ACCTATATAT TCAACAAACA ATTCTGATAA TTGGCCAGGG TTGAGAATGA
32581 CTAGCAGCCC AGCATACACT ATCAGTTTTA AGTATATAAT TGCGCTTTAG TAAATGTAA
32641 AGAAATCCCA GAGTAGAAAT ACTTTTAAGC TATATTACAG GTGAGAAAAT GCATAAGTAT
32701 AGTCTCACCC AACTTAGACT ATGGGGGCTT TATAATGTCA CAACAGTTGT TTCCAGGCAT
32761 TTGGGGACAT CACCACTGGT CTTGGGCAAG AAACCTCTCT AGCCAATGGC TGATTTATCT
32821 CACTCCCATC TAAGGCTTCA CTGCATTTCT CTTTTTCAGC AACCTAACTT ATTTAAAAAT
32881 ATCCATTTTC TGATTCATTT TTTTCTGAAT TAAACTGTCA GTACCATTGG CACACCTTTG
32941 GTTCCGTAGC ATACCTGTGT CTCTGCTGTG GTTTTTTTTA CCTCCACTCC TTACTTTTCT
33001 AGAAAAAAT CTCTGCTTTT TCTTTTCAGT TTAAATTATT TCACAAAAAG TTTTCTTGAC
33061 TTGCACTTCC TAGGCTTGCT GTCCTTGTGT GGGCACGCTC CCATAAACAC TATTAATACA
33121 CTTTCGATTG TTAATAATAA AGATATCTGG ACAGAAAATT TCTTTTCTTT TTTTAAGATT
33181 TTAATAATTT TAATGTTTAT TTTTTTCTA GACTGGAGTA CAGTGGCACC ATGATGGCTC
33241 ATGGTAGCCT ACACCTCCCC GGGCTCAAGT GATCCTCCCA CCTCAGCCTC CCAAGTAGCT
33301 GGGACTACAG GTGTGCACAA CCACACCTGA CTAATTTTGT TTATTTGTTT GTTTTGTTTT
33361 TTGAGATGGA GTTTCGCTCT TGTGCCCCAG GCTGGAGTGC AATGGCGGGA TCTCGGCTCA
33421 CCGCAACCTC TACCTCCCAG GTTCAAGCAA TTCTCCTGCC TCAGCCTCCC GAGTAGCTGG
33481 GATTACAGGC ATGCATCACC ACGCCAGCT AATTTTGTAT TTTTAGTAGA GACGGGGTTT
33541 CTCCATGTTG AGGCTGGTCT GGAACCTCTG ACCTCAGGTG ATCTGCCCCG CTCGGCCTCC
33601 CAAAGTGCTG GGATTACAGG CGTGAGCCAC CACGCTCGGC CACTAATTTT GTATATTTTG
33661 TAGAGATGGG CTTTCCCTGT GTTGTCCAGG CTGGTCTTGA ATTCTGGGC TTAAGTGATC
33721 TGCCACCTT GTCCTCCCA AATGCTAGGA TTACTGGCGT GAGCCACCAG GTCTGGCTGG
33781 AAAGATAATT TCTAACATTA TCCTCTCTTA AACATTTGTT TCAAAAATTT TACAAACATG
33841 AGAGTAATTA AATTTGATTT TCAAAATTCC CTTGAATACT TTCTTAATAG CACACAGAAA
33901 GCACAAAGTA TTTTACATTT GTTTTAATGA TGAAATTGTG AACCCAACT TACACAAAGA
33961 AAAACCGTAA CATTATACCC ATACTTAAAA CAGATGCCCT CATATACATA GTAAAACCTC
34021 TGGGGGCGAG AGTGAAGTTG GTTATTTACT GTTTTATGAA AGTGCCATTC AGCCGGGTGC
34081 AGTGGCTCAT GACTGTAATC CCAGCACTTT GGGAGGTCTG GGCAGGCTGA TCACGAGGTC
34141 AGGAGTTCAA GACCAGCCTG ACCAAAATGA TGAAACCCTG TCTCTACTAA AAATACAAAC
34201 ATTAGCTGGG CGTGGTGGTG TGTGCCTGTA GTCCCAGCTA CTCAGGAGGC TGGGGCAGGA
34261 GAATCGCTTG AACCTGGGAG GCGGAGATTG CAGTGAGCCG AGATCGCACC ACCGCACTCC
34321 AGCCTGGGAG ACAGGGCGAG CTCCGTCTCG AAAAAAAAAA ACAAAAAGT GCCGTCATAG
34381 TGACTTAGTT TTAAGGAATA AATCAAGGAT ATTTAACTCA ATAGACTACA GTTAGCTAAC
34441 GTGACTTGCA CTGAAAGTTA TACGAATATT GGTACTTATT CCCCTGCCCC TGAAGTATGA
34501 ATTAAAGACT CAAAATTCT TTTTAGAATC TTCAGAGTAA AAGCTAGAAT TTGATTTTTT
34561 TAAATAATAA AAAAATACTT TGTATCTAAA TCTGGTGTAT AAAATAACTT GGTGGATGAT
34621 GCTTCAAGGC TATCCATCCC CAAATTTCTC CTGAATGAT AAAGAGAATA AATGAATATG
34681 TCAATTCAAA AGTTAGAAAT TTGGCCGGGC ACGGTGGCTC ACTCCTGATA ATCCTTTCGG
34741 ACGCTGAGGT GGGTGGATCG CATGAGCTCC GGAGTTCAAG ACCAACCTGG GCAACATAGC
34801 CAGAACCCGT TTCAATAAAT AATAGAAAAA AATGAGCCAG GCGTGGTGGT CCCAGCTACT
34861 CAGTAGGCTG AGGTGGGAGG ATCACTTGAG CTCAGGAGGT CGAGACTGCA GTGAGCCGTG
34921 ATCGCAGTAC TGCACACCAG CCTTGGTGTC AGACTGAGAC CCTGTCTCAA CAACAACAAA
34981 ACAAGTTAGA AATTTGGCTG GCGCGGGTAG CTCACGCCGT TAATCCCAGC ACTTTGGGAG
35041 GCCAAAAAGG GCGGATCATT TGAGGTCAGG AGTTCGAGAC CAGCCTGGCC AACATGGTGA
35101 AACTCCATCT CTACTAAAAA TACAAAAAAA CTTAGCCGTG CATGGTGGCA TGCGCCTGTA
35161 GTCTCAGCCA CTTGGGAGGC TGAGGCAGGA AAATTGCTTG AACCCAGGAG GCAGAGGTTG
35221 CAGTGAGCCG AGATCATGCC ACTGCATTCC AGCCTGGGTG ATAGAGTGAG ACTCCATCTC
35281 GAGAAAAAAA AAAAAATTCT GTATGAACTG AACAAAATAT CCTTAAATTT TAAAATACAT
35341 CTGAAAGATA TTTCAAATAA TTTAGGAAAA AAATTATAGG GATCAGGCAA ATTCTGAGAT
35401 TCCTTTTTTC CTGCAGCAAA CATTAGGAGT GCTGCTGTTT CTAAAAACAT GGTAAGTGT
35461 GCCACACCGT ATGTTTCCTT GGCTCAGACA TAAGGTTGTG TAGTTGTTAT TCCAGAATAG
35521 CTAGAATAAA AATCCAGCAC ATCATTTTCT TCAGCAAGTT AACTAACCTC TCTGTGCCTT
35581 GGTTCATATA CAGCAACATA AGCATAACAG AATAGCAGCA ATAGCTCCTA CCTACCTCAT

```

Figure 9 (Page 11 of 74)

100/162

35641 AAGATTCTTT GGAAGAATTA AATTAAGATT CAGAACACAG CCTAATATCT AGTAAGTAAT
35701 AATAATTGGC TAAAAAAATT TTCTTAAGAT TATATATATT CATGGGGTAC AAGTACAATT
35761 TTGCTACATT AATATATTGC ATTGTGGTGA AATCAGGGCC TTCAATCCAT CCCGGAAAAA
35821 AAAAGTTTTT GAAAAGATTT CTGCCATGGA AAACTTTTAA TGTACAAATT CATCCATCCA
35881 AGAAATAGAA AATATATAAG TATCAACTCC AAATCCACCA TATCTATCTC TTCTGCACCT
35941 TAAACAATTA CTCAGAAATA GAATGCTTGA GATACCAGAA TGCATGCATA TCAAGTAATA
36001 AATGCATGCA GGATGTCAAC GCATCCTAGG CTTTCAAATA AAATTGTCAT ACAAATACT
36061 TTAATATTGT AGTAACATTC TACATGTTAG AGTGTAGAAG TTAATCGCTG ATGCAAAAAA
36121 GGAAAAGAAC ACATTATACC CAAAGCCTAC AGAGAGAATC ACAATTACAA ATATCAGCCT
36181 GCATGTGAAA ATCTTTAATT TGAAAGTCAG AAATATTTAA ATGATAGTCA TTGTTAAATC
36241 AGATTGTGGT TTGAAAAAAA GTTAGTTTAA AACTGAGTTT ATGAAAAATT TGGGGATTTT
36301 AGAGACAGTG TTTTGTTTTT AAATGTGTGT GAGTTTGTGA AGAATGTTTT ATAAAAACT
36361 GACAGTATTA TAAGATGACA TTATTATAAT ACAACATAAG AATTTTGGCC TGTACCTCTC
36421 AGCAGTCCTC AATCACCTGC TGACTTGCAG TCAATGATTA TCAGAGTGGT TTGTTTTCTC
36481 TCTGTTGTGT TCCCAGTTCA GGCAGCTCAG CAATGGCCTG TGATTCCAGC AATTCAAATA
36541 GCTGGTAAGT AGTTTCTTGT TTGTTTTCTC AAATTTTCAG GGGCTTTTCT CTACAAGTGA
36601 TTTCCAGTGC ACGCCCCCTC ACCCATTCTT TATTCTTTTA CCTTCAGGAA AACCTCAGC
36661 GCTGCATCTC TGGTCACCGG ACCACCGTGG TACATTTACC TATGGCCACC AGGTGTCACC
36721 CTTCTCTTTA CTACCATGGT TTGTGAATGG TTTTGCCAGA GGTGAATAAG AATTAAAAAT
36781 GCAGGTCTTT GATTTTTCAA ATGTAGTTGA CCTTAAGAAT TTATGAATAA AGCCAGAAAA
36841 ATTAAGCTTA AAAAAACCCG AAAGAAAAATG AGGACTTAAA ATTTCTATTA AAAAAATTAA
36901 CAGGCCACAG TTGCTGATGT TTAGTAAATG TGTTAGTGAA ATGTGTTACT GTGAAGACTG
36961 GGGTGTCTCT TGAAATCTCA GCCCAGGTGA AATAAAAACCA ATATAAAACA AATGCTTACC
37021 TAATAAATTA ATTGTAACAT ATTCCTTATG AGGTAGAAGA GTAAGTGAAG CCTTATAGCA
37081 GTCTGCTTTC AGTATAGTAA GATATTAAGA GAGAAATAAT TTGTCATATG CTTTCAGAAT
37141 GGTTTGCTGG TAAAAATAACC AATGTCTTAC AACTTAGACG ACAATGTCCC TAGAGTGAAG
37201 AAACACGATT AATTCGGCTA CCACAGTTGA ATGAAAATAT TCCGTAAGAC AAAATGTAAA
37261 GAAATTAGAA GCAAAATAAA TGTCTCCAAA ATGACAAAGC GATTAAGTAT ATACACAAGA
37321 TGAACAAGAA CTTCAATAAA ATCATGCAGT ATACAATACA ATGTACATTT ATTAAAGTAT
37381 ATGCATTTTT AATGCAACAA TAATACTAAC AGGTAATAGA CAAGTTGTTA ATAGTTTTTC
37441 ACTGGCTAAT TAAATAACAG CTTTAATTGT ATTCATTTTA TAGCTTTTCT ACAATGAGCG
37501 TAAATCACAT TTAATTTTTT CTACATAACT TTTCTAACCA CAAAAAAGA AAATGGTTTA
37561 AAAGAAGAGA TGAGATATCT TTGCTAAAAT TTAATGCCTA AAGAAGAAAC TTCTGAGCTG
37621 TATATGGTAT CCTGAAGCAC CTGCCCTTCA AGACAGAATG CTTGTACCAC ATTTATGCAG
37681 CCAAGTGCAT GTAGTAACAT AAAGTAAACA CATGCCATCT GGATATATAT ATTAAGACTC
37741 TTTTGACGGC TGGGCAGGGT GGCTCACACC TGTAATCTCA GCACTTTGGG AGGCCGAGGC
37801 AGGCGGATCA CGAGGTCAGG AGAGTTCGAG ACCAGCCTGG CCAACATGGT GAAACCCTGT
37861 CTCTACTAAA AATACAAAAA TTAGCCGGGC ATGGTGGTGC ACGCCTGTAA TCCCAGCTAC
37921 TTGGGAGGCT GAGACAGGAG AATCGCTTGA ACCTGGGAGG CAGAGTTTAC AGTGAGCCGA
37981 GATCATGCCA TTGCACTCCA GCCTGGGCAA TAGAGTCTCA AAAAAAAAAA AAAGACTCTT
38041 TTGAACATGG TGAAGTGATT TCCCAGAATC TAGCAATTCC TGAATGTCCT GGTTAGATTT
38101 TTTTTTTAAT GTGCACCGGA ACCCCAGTGG CTCCATGGAA GGACCTGGGC ATCCTCTAAG
38161 CCACTTGGTG GCTTCCATTA TACCATCTCA AAATGAGAGA GCTTACTCCA CTTTATTGAG
38221 GGAAATACCA CCAGAGTTCT GACTCCAGAG GCACTGGCCT AGGGAGGACA CCGTGTGTGA
38281 AGCCCAGCAG GGCCACTAGC TGTCCCCACC AATTACAGTC CTTGCGTAGG GTCCAAAGAA
38341 ATGAATGCCA AAGAGAGCAA CAGAGGAGCA AGGGAGTCAC ATTCCAGGAC CTTCTTCAG
38401 GGACTTTTAA AGGAAACATG ACAGCTGAGG ATCAGTTGGT TGTTTTCTGC TGTTCCCTT
38461 CATGTGATTC AAGCTCATTC AGAAGAAACA CAATGAGACA AGAGAAGAGC CATCTCCTTC
38521 CTTCTCTATT TATTCTAGGC ATCTAAACTA CTGAATGTAG TGGTGTCTGA GATGTATCAA
38581 ACGGTCAGAT TGAAGTGTG TGAAACCTGT TTCTATCACT GACAACTAT GAGATACTCT
38641 ATACTTCACT TTCTTTTTTT TTTTATTTT TATTATTTT TTTTATTTT TTGAGATGGA
38701 GTCTCACTCT GTCACCTAGG CTGGAGTGCA GTGGCGCAA CTCGGCTCAC TGCAAGCTCT
38761 GCCTCCTGGG TTCATGCCAT TCTCCTGCCT CAGCCTTCCG AGTAGCTGGG ACTACAGGCG
38821 TCTGCCACCA CGCCCAGCTA ATTTTTTGTA TTTTATTAG AGATGGGGTT TCACCATGTT

Figure 9 (Page 12 of 74)

101/162

```

38881 AGCCAGGATG GTCTCGATCT CCTGACCTCG TGATCCACCC GCTTTGGCCT CCCAAAGTGC
38941 TGGGATTACA GGCGTGAGCC ACCGTGCCCC GCCTACTTCA CTTTCTTCAT TAAAAAAGA
39001 AATGGGGATA ATAGTACCTA TCTCATAGAA TTATTGTAAG AAGTGCATGC AGTAATGCAT
39061 GTAAGTAGGT GCTCAGAAGA GTCGGACACG AAGTAAGTGC TTTTATCATC CTTATCATAA
39121 TTTTCATTAT CAGAACAAGG AGAGACCAGG TAGAAAATTA TTGTGATTCT TCAGGTCTGG
39181 AATACTAGAG TAGCATCCCA AATGAAGGCA CCATTAAACT TTGCAAATCT GTATGACACC
39241 TTCATGCCAA TTAGAAAAAA CACCTCTTCA CAACCCCTTT CAAGATATTT GCCTCCTACC
39301 TGCTAAAAAC ACCCATCATA CTACCCACAG ATAGCCATGA TGCTTTTTCT GGGACAGGTG
39361 CCTCTTCCAT TCGTGCAGTG TACAGCCTTC ATAGCTGTGC AACTCACATC ACAATCAGAT
39421 GGAAGAAATCC CCAAGGCTTG GTGACAGATG AGTTACTGGG TAACACAGAG AGAGGATTCA
39481 AAGGAAAAGT TGAACGGGTC CAGAAAATGC ATAGATACAT GTGTAAAAAT CTGGTAAGGT
39541 TATGACTAGC CACGTCCCAG GGTTCAAAGC TTTTCTCAGA TGTTAAATG AATCATGTAA
39601 GTCCCCCAA TTTAAGGAGT CCTCTTCCAA AAATAGGAAA TGAAATGACA TAGGTGTATG
39661 TCTCTGAGGT GACGGAGGAA ATGAAGGAA CCTCTAGATG CAGCTTGAGG TTCATGAGAG
39721 ACAGTTCAG GGGAGAGGTC ACAGCTAGGG ATCACCAGCA TGCAGGAATC CAGAAACCTA
39781 AATGGGGAAA TCTTTTTGAG GAAATGAACA GAGAAGGCTA AAATCAAGGA GTTCGTGAGG
39841 CAATTTCTAT GTTTAGGTTT AACTCTCTCC TGAAACATGA AGAGCTCATA AATGCACTCC
39901 CTCTTTGAGT CTCTAGTTTT GTCTCCTTCC CACAGTGAGT CTGCAGGCTG CGTGTCACTC
39961 ACGTTCAGCT AAGACGTAGT GCCCCATGGC TCCTCCTGTG GAGACAAAGAG ACCCAGGAAA
40021 GAGGCATCAC AAACCTAGGC ACCATCTTGC CTCTTCTCTC TTCCTTATTT TCCTCATTCA
40081 CCCATCTCAA TTTAGACCTG GGCACATTG GATTTCAAGA ACCATTATCT CTCATCTGGA
40141 AATGCTTATT GGCTTTCTAA CTGGTCTCCT CACCTCTCAT CTAACCTCTT AACAACACAT
40201 TCACCATATA AGGGAGATCG TGGTCTCCT TTCTTAGGAT CCTTCAATGA CCCCCAGTG
40261 ATCATAACCC AATATCCCAA AAGACCCCTG GACTCTGTAT GAGCTGGCTT CTTTCTGATT
40321 CTCTTTTCCC TACACCACAG ATGTTACAGG GGTAGAAATG CATAATTGGT GAGTGATAGC
40381 TAAGCAAAC CAGGGTTAAG GTACAGTAAT TATTTCTAAT CTCCCAGTAT GCCTTATACT
40441 CTCCTACTTG GCATGGTTGC TCCGTCTGTG TAGACCTCCC ATCATCTTCA ACCTCACCTA
40501 ATGGAATCCA GCTTCTCCTT CAAGATCCAG AAGGCTATCT TGATCCCCAG CTGAATGTGA
40561 TCATTCTTTC CTTTGACACC CTAAGCATTT GCTTCTGCC TGCTTTAGGA CCTCATGGGG
40621 TCTTCTTTAA CTACATTTAC TTGCTATCAA TTTTATTCCC TACCAGATTT GGGTCTGAG
40681 AATAGCCACA GTGACTTCTC AACCTCAAAG CCCCTGTACT ACCTTAAACA GCTCTTGCAA
40741 AATAGTAGGT GCTCTGAAGA TGTTTGTGTA ATTAGAGACT TTCATTCTGG GGAGAACCAT
40801 TATTTTCTGT CTCCCAGGGA GCTGCTGGTG TCCCCAAAGA ATATAAATGA GAAAAATGCT
40861 TCCCATGGAT GCCAGATCCC CTCTGCCCCT CTCCCCTG TGCCCTGGGG CAGAGGTACT
40921 AAGAGACTTC CCCCTGTTC CTACTCACTT GAACCTGCC TCTTCCTTAA TATTATGAAC
40981 AAAATTCCAA TGAACAAGAT GACGACAAA ACAGCAATTC CACTGATGAC TCCAATGACT
41041 AGGGTGCCAG ACGGTGAGGG CTCTAAAACA GAAAAAGCAA GTTAAAGCCT TTGATTGCCA
41101 CCCTCAGCCC ACCCCCTAAC AAAGAGCAGA TCCTCATCTC ACTGCCATAA TTACCTCTC
41161 AGGCACTCCT CTCAACCCCC AATAGATTTT CTCAGCTCCT GGCTCTCATC AGTCACATAC
41221 CCCAGATCAC AATGAGGGGC TGATCCAGGC CTGGGTGCTC CACCTGGTAC GTATATCTCT
41281 GCTCTTCCCC AGGGGGTACA GCCAAGGTTA TCCAGCCCTG GTAGGTCCCA TCCCCATTGG
41341 GCAATACGTC TTTAGGTTCC AACTCCTTGG CATCCATTGG CTGCTTATCC TTCAGCCACT
41401 TCATGGTGAT GTTCTGGGGG TAGTAGTTCA AGGCCCCGACA CCGTAGAGTG GTCACTGAAG
41461 AGGTACATG ATGTGTCACC TTCACCAAAG GAGGCACTTG ACAGGAAAGA GGAAGGATGA
41521 GGAGAGGGGA TCTGTTTACC CTTGCCAGGA AGACTGGAAC TTTCACTTCC TTCTATAGGT
41581 TGGAGGAAGG AAATACCCCT TTCAGAAAAA AACAAAGCTAC AGGAGAGACA CCATTTTGTG
41641 TCCTAAGATT GGACTCTAAC ACAGTGTCAC TTGGAGAGCA GTCAGATCAG CTTGTTCTCC
41701 TCACATGTAA ATATACATAT CTGTTACCCA TGTTCTTTGT TCTGATAGAT AAAATTGCCC
41761 TTTATGTGCA TTGAAAATGA TTGAATACAG ATGGTCAGTT TCACCTGGGT CAACCTAGGA
41821 GGCATTGTTA TAAGAAGCGG ACTTGTAAGA TAGGTAGCTT CAGTGATTAT TGCTATGTTT
41881 TATGAAAGAA ACTTTTAACC TAAAGGATTC TTCTACTCTG ATAAGTGGCC TCACTTGATA
41941 TTTTGTCTTG GTATTCTAT GATAGCTGAG ATCTCTGAAT TCTCTTTTTT TTTTTTTTTT
42001 TTTTAAAGAT GGAGTCTCAC TCTGCTGCCT AGGCTGGAGT GCAGTGGCGC GATCTTGGCT
42061 CAGTGCAACT TCCGCTTCCC AGGTTCAAGC GATGCTCCTG CCTCAGCCTT CCAATTAGCT

```

Figure 9 (Page 13 of 74)

SUBSTITUTE SHEET (RULE 26)

102/162

```

42121 GGGACTACAG GTGCGCATGA CTGTGACCAG CTAATTTTTG TATTTTTTTA GAGACGGGTT
42181 TCACCATGTT GGTCAAGGCTG GTCTCAAACCT CCTGACCTTG TGACCACCCG CCTCGGCCCTC
42241 CCAAAGTGCT GGGATTACAG GGGTGAGCCA CCGTGCCCCG CCTTGACATT TCTGAATTTT
42301 TAACAGGTAT AAATATACAA AAGATTATTG GTTAAATAAA AAGCAAGGGC CATAGACACT
42361 TCCCTTTGAG CCATATGCAT GGAGAAAAGA AATTAAACCC ATGACTTGTTG GCTGTCTCAT
42421 ACATCTCAAT TATAAGGTAG AGACTCTAGG ATTGAGAAAG TCCCTTCCCA GAATTTGGAG
42481 AGGCACACAG CCTCAGCCAC CTCTGAAACT CCAACCAGGG ATTCCGTGCC CTGCAACCTC
42541 CTCCACTCTG CCACTAGAGT ATAGGGGCAG AAGTGTGTTT CCACCATACC TTGTTGGTCC
42601 AAAACACCTC TCCCCAGCTC CAGCAACTGC TGCAGCTGTG CAGGGCAGTC CCTCTCCAGG
42661 TAGGCCCTGT TCTGCCTGGC CCGAATCTTG TGCCTTTCCC ACTCCAGCTT GGTGGGCCAG
42721 GCCCTGGGTT CTGCTGCTCT CCAATCCAGT GTGTGAGGGC AGAATTCAAG GTGGTCCTGC
42781 CCATCATACC CGTACTTCCA GTAGCCCTCG GTACTGTTGT CTTCTTGCAT TTCACAGCCC
42841 AGGATGACCT GCAGGGTGTG GGACTCTGGA AAAATCCCCA GCCTTGTTAA CTGCAACCAA
42901 AGGAATAGGT CCCTATTTCC ACCATCCCCA AGGACCAAAT GATCTCAGGA AGCAAATTCC
42961 TTCCCTCTTC CCTGCTCCCA CAAGACCTCA GACTTCCAGC TGTTTCCTTC AAGATGCATG
43021 AAAAGATGAA AAGCTCTGAC AACCTCAGGA AGGTGAGGCC CCTCTCCAC ATACCCTTGC
43081 TGTGGTTGTG ATTTTCCATA ATAGTCCAGA AGTCAACAGT GAACATGTGA TCCCACCTT
43141 TCAGACTCTG ACTCAGCTGC AGCCACATCT GGCTTGAAAT TCTACTGGAA ACCCATGGAG
43201 TTCGGGGCTC CACACGGCGA CTCTCATGAT CATAGAACAC GAACAGCTGG TCATCCACGT
43261 AGCCCAAGC TTCAAACAAG GAAAGACCAA GGTCTGCTC TGAGGCACCC ATGAAGAGGT
43321 AGTGCAGAGA GTGTGAACCT GGAGACAGAG CAACAGGCCT TAACCATGTG TAGTAGGAGG
43381 GGAGCAGGAT GTTGAGGCTC CACACACCTG CATCAACTCA TACCATCAGC TGTGTCTGGT
43441 CCTCATTTTG TGAAGGGTGA GTTGCAGTCC TGTCTTTCTT CCATATGACA GTCCTGGGTG
43501 CTCTTTCCTT GTGTGCTTTT CTCTGCCACA CGTGGCTGCC ACCCCCTCAC TGCCCCCAGA
43561 TCCTATTCCA ATACTCATGA TTAGACAGAC TCCACTAAAG CTGGTGGATT CTAGAAAATG
43621 TTAAGGTGTG TCTAGCCATG GTAGTTGAAC TCAGGAGTTG GTGCTCAGGG CAAATTAGAC
43681 CCAAATCCTG AGGAATAATT CCTTCAGTTT TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT
43741 GAGACAGAGT CTCACTCTAT CACCCAGGCT GGAGTGCAGT GGCACAATCT CAGCTCACTG
43801 CAACCTGCAC CTCCTGGGTT CAAGGGATTG TCCTACCTAA GCCTCCTGAA AACCTGGGAC
43861 TATAGGCGTG CGCCACCACA CCAGGCTAAT TTTTGTATTT TTAGTAGACA TGGGGTTTCA
43921 CCATGTTGGC CAAGCTTGTC TCAAACCTCT GACCTCAAAT GATCTACCTG CCTCAGCCAC
43981 CAAAGTGCTG GGATTACAGA AGTGAGCCAC CGTGCCAGC CTTGGTCCTG AATTCTTACA
44041 CTGAAGTACC TATGTGGCCT CACCACTTGG AAGCCTGACT GGAATCTCAA ACTTAACATG
44101 TCCAAATGCA GATCCTTGAT TTACCCCAA CTGCTCTTTC CTCTGCCTTC ACCATCTCAG
44161 AAATGGCATT GCCAATTACC CCACTGCTCA GGCCAATAAA ATTTAAATAA AGAACAAAGT
44221 CAACCTTAAC TCTTCTCTTT TTCAGGGGGT CAGGGGAGAC AGGGTCTTGC TCTGTACCT
44281 AGGCTGAAGT ACAGTGGCAC AGTCATGGCT CACTGCAGCC TCAACTTCCT GGGCTCAAGC
44341 AATACCCTCC ACCTCAGCCT CCCGAGTAGC TAGGATCACA GGTGCATGCC ACCACACCCA
44401 GCTAATTTTT GTATTTTTTG TAGAGAAGGG GTTTTGCTGT GTTGCCAGG CTGGTCTTGA
44461 ACTCCTGAGC TCAGGAATCT GCTCTCCTTG GCCTCCTCCT TGGCATGAGC TACTACACCC
44521 AGCCAATTCT TCTCTTCTC TCACACAACA TAGAATCCTT CAGCAACTTC CTTCAGAATA
44581 TATTCAGGAG ACAATGGTTT GTCCTCCCT TTTCTGTTCC CACCCAGCCC ACTCCACTAC
44641 CTCTTGCCCTG GACTGTGTAA CAGCTTCCTG GCTGGGCTCC CTGCTTTTAC TGTTGCTCCC
44701 TTCATTCTGC TTTCCACATA GCAGCCAGAG CAATCTTTTA AAAGCCTGTG ACAGATCACT
44761 GTTACTCCTT GGCTAGAATT CACACCACAG CCTACAGGCG CCTGCACAAC CTTGTTTGTG
44821 GCTCCTCTTC TGAGCCCAT ACCTACTTCT TGGCCTCTAC TCCCCAGCAC TACTTGTTTA
44881 TTTTTTCAA CCCGAGCTTC TTAACCAGGA GTTTGTCTAC TAGGTGACAT GTGGCAAAGT
44941 TTAGAGACAT TTTTGGTTGT CAAGACTGGG GGAGTGCTCC TAGCACCTAG TGAGTAGGGA
45001 GGACAGGATA CTGCTAGACA TCCTACATGC AGATGGTAGT CCCCCTTCCC ACCCCCACGC
45061 CGCCCCCCCC CCCACACACA CACACATGAG TAGTGCTGAG AAAACCCGCT TTTTAATCCA
45121 ACTTGCCAGG CCCACTCAGT TTGCCTGGGA AATACTGCTC CCAGTCAATA TCATTCTTAT
45181 TTCCTTCATG TCTCTGCTCA AGTGTGAGCC CCAGAGTGAC TTGCCCTGAC TTCTCTGCTT
45241 CTCACAACAC CCATGATTTT CTGATGTTGT ATATCTTCTT GCTCATTTGC TTATTGTCAT
45301 CTCTCCCACT AGAATGCAAA ATATCAAAGG GTAAAGACTT GTTCCCTGCT TCTCTCCCTT

```

Figure 9 (Page 14 of 74)

103/162

```

45361 GGGGCTTGAA CAGTGCAACA CATGGCTGGG ACTCATTTAC ACTTGTA AAC AATGAATATT
45421 TCTGCTCAAC ATGAAATTTT ATTATTCAAC CTCTAATGCA GTGTGATGTT TAAGAATCAT
45481 AGCTATGAAG TGGAGACATG AGCTCTGCCA CCAAAGCCCC GTGTACCATT GAATAAATTT
45541 GCCAGGAAGC AGGCCGTGCC ATGCCCTCATT CTTGTTCATGT GTAAAATGTG GATACACGTA
45601 GTACCAAAAC TCAAAGTGCT GTGCTGAGGC CGGCCGTGTGA CCCACAGAAC ACTGTGCTAC
45661 ACTACAGGGC AAAATCACTG TCAACTAAGA TTAGAAGCAG CTGTAGTACT TGAAATAACA
45721 TCAGAAAACC AGATTATTTA TGTTCTTTGT AACCTGAAAA GAGTTATATA ATCTGAATTC
45781 CAGTTAACTT CTAGTAAAAT AAACGTATTA TTAGCTCCTA CCTCCCTATG CCTAGTGAAA
45841 ATCAAATAAG ATCAGATATG AATGTAACCT AGAAGTGAGT GCATTGCTTA CATGTTTCATT
45901 ATCAGTACTT TGTAAGAGAG CCTCTTAATT ACACAGCACA TTGCAAAATCA ATAAAGCCTA
45961 GCCGAAAAGA GAATTGTTCA GTTCAAACGT TCAAAACTAA CATATACTTA ATTTTCCAGG
46021 CAAAAGAACA ATTGCCAAGA GTGGGGAAAG GCCCGAGGTA GGCTCTCTC AGGAGCCTCC
46081 CACCTTAGAG ACCTCCACCC CAGGTCTCAC CAAAAGTGGG TGGAATGGTG AAGAATTCAG
46141 ATCCCCAACG CCACTCTTTC GCGCCCCAC CGCCCAACGC ATTCGTTCTG AGGTGGAAAC
46201 CCCGTGCGGA TCCTGCTGTG GGTTCGCTCA GCCTTCTCGG CAAGCACTCA GGAAGAACT
46261 TCCTGTTTGG AGATGACTGG GGAAAAAAGT GCACAGCTGA CATTGGAAAT AAACCCGAGT
46321 TCCAGGTTCA AGGAGCCCCA GGCTTAGCTC AGCTCAAGTG AGGAACTACG AGATTTATTT
46381 AAAAGCATTG TAGTTGGGGG AAGGGAGTGG CGGGTTCCAA AAGTCACTCC GCAGAGCCGG
46441 GACAGCCGGG GGAGGGGGCA GGTCTGGGG CGAGGGACCC CTATCTGCAG TTCAGTGGTA
46501 GGCACCTCCCT CACGGGGTCT GGACGCAGAA AGTAGGGAGA GGGGCTTGCG GATTGGGTTG
46561 AGCAGGTCCCT CCAAAGTTAG CAAACTCCCA AGCGCAAAGA AAAAGCTAGT TTCGATTTTT
46621 CCACCCCCGC CGCGCCCCTA GTTCGCCCCG AGCCCTCGGA CTCACGCAGC AAGCGCCCCC
46681 GCAGGACCGC GGTCTGCAAA AGCATCAGGA GGAGAAGCGC CGGCCTGGCT CGCGGGCCCA
46741 TTTCCCCAGC TCTGGCCGCA CGTCCCCGTT AAATCTCCGC TTCTTTTGGG GGGCGGGGAA
46801 ACGGGGATGG CTCCAGAAAGT CACCCTACAG CTATTGCCTA GGCTCAGGAG ATGCCAGTA
46861 AAACCTCCTG GTGAAAAGCA ACAGGTCTTT CAGAACTTTA GTTCTCTCTC TCCTACAGCA
46921 GAAGGTACCT GCTTGTGAAA CACTAGGTGA TCCAGTGTCC CCCTTGGTTT TTAAATCCTG
46981 AAGGGGTGTT GTTGATTGGG GAAAGTAGCT TCGCAATGTT CTGATCTGAA CTTTAGATAT
47041 TTAAATATTT ATGATTTTCA AAATTCAATC ATACATTTAA AAATTTTATC TCAACCTTAG
47101 ACCAACTTAT GTCTTATTTG ACTTAGAAAT ATAAAGCTTT TTCATTTTGT TTTTGTATTC
47161 AAATTAATTA AGTCATAACA TTAACCAATT AGATCCTACT GAAACACGTT CCACAGCCTT
47221 CATAATTGAA TTATCTGACA AGTGTTCAC AAACCTTACA GTATTGGGAT TATCTGGAGA
47281 ATGATTAAAC ATATTGAGGC CTGCTCCTAA CCCCAGACAC ACTGATTTAA TGGGTAATTG
47341 TTAGGTAGTT AGACATTAGC AGTTGGGAGG GGATGACAGA AGAGAGCGGA AAGGCTGTCA
47401 CTAAGACAGC CACTGGCCCA CCTAAATTCA GGCCCAAGAC TACCCTAATG CCACCTAAG
47461 GGATGGAGTT TATGATAAAG TCTGTGGCCA AAATATCCTG GAGAAAGAGA AAGGAGGGTA
47521 CAGGTGGAAA TTCCCTAAGG TGGCACATGC CCAACAACAC AAAAGCCTGT CTTCAAGTTC
47581 ACCCCAAGTT CATCATGCCA TCATTATAAT AGAATTTACA TACAGTTTGT CCCCCCATC
47641 CCTGGGAGGC TTTTCTTAAC AAATTATAGG TAAGACCATG CACAGTTTAA TTTTAGATTG
47701 TATAGCTATA AACTTCAATC AAATAACATC ATCCTGTCAC TCAGATACAG CCCAAACCTC
47761 AACTCCTCCC CACAAACCCC ATAAAAGCAC CTTGAGCTCT GTAAAGAAGT GCTGAGTTCA
47821 CTTCGCAGAA ATAAGCCCCG TGTCCCTCAG AGTGTATTAT TGTGCTTCAA TAACTTTGC
47881 TTTAAGCTTG CATTTTGGTG TTAGTTTGTA GTTCTTTGCT CACTATCACA AGAACTGAGA
47941 TTGCTGCTTC AGAGCTCCGG CTATAATAAT CTCCTCGGTT AAAGGATCCA TCCCAATGCA
48001 TAATTCCCAG TAACAGTATG GGATGCCACC TGGGCAATGG GATTTTAAAA GCTTTCCTTC
48061 TCCCTCAACG AAGTTTGGGA ATTATTGCCT TAGACATTTT AAACAATATT AATAAATTTA
48121 ATACACCTGA TTTGCTCCAA ACCTTTACAT ATCTAGCAAA TTCAACAGGC ATTATTTTGT
48181 TAAGCATGTA TGCAAAATTT GGCAATTCAA GAAAATCAA CAGGATATCA GGGCCTCGAC
48241 TGTAGGCAAA CAGATACAAT AACATTGGAA ACATGTAGAA TATTGATGAT GGGCACATTG
48301 GGGCTGATAG TACTATTCCT TTTTTCAT TTTTGGTAAG ATATAATTAG CATACCATAT
48361 AATTCATCTA TGTAAAATGC AAAAATTGGC CCAGCTCAGT GGCTCACGCT TGTAAATCCCA
48421 GCACTTTGGG CGGCCGAGGA AGGCAGATCA CCTGAGATCA GGGGTTTCGAG ACCAGCCTGG
48481 CCAACATGGT GAAACCCCGT CTTTACTAAA AATACAAAAA TTAGCCGGGC GTGATAGCAG
48541 GCAACTGTAA TCCCAGCTAC ATTAGAGGCT GAGGCAGGAG AATCGCTTGA ACCCGGGAGG

```

Figure 9 (Page 15 of 74)

104/162

```

48601 CGGAGGTTGC AGTGAGCTAA GATCGTGCCA TCGCACTCCA GCATGGGAGA CAAGAGCAAG
48661 ACTTCATCTC AAAAAAAAAA AATTAGCTGG GTGTGGTGGC ATGCACCTGT AATTCCAGCT
48721 ACTCGGGAAG CTGAGACAGG AGAATCGCTT GAACCTGGGA GGCGGAGGTT GTGGTGAGCC
48781 GAGATCATGC CATTGCACTC CAGCCTGGGC AACAAGAGCG AAACCTCCGTC TCAAAAATAA
48841 AATAAATAAA ATAAAATGCA AAAATTAATG GATTTTAGTA TATTTACAGA GATGTGCAAC
48901 CATTACCAAA ATTTTACATT TCTATCTCCC CAAAAAGAAA CCATGTTCCC CTAATTCAGT
48961 ACCCTTAATT CATCGCCTCC CAGATTCCCTC CATTCTCCTC CTCCTCCCCT CCCAGCCCTA
49021 GACAATCTTT AATCTACTTT CTTTCTATTT GGAACATTTA GTATACATAG AGGCATATAA
49081 TATATTGCTT TGCCGTGACT GGCTTCTTTC ATTTAGCATA ATGTTTTTAT GTATGTTTTT
49141 CATGGACCAA TAATATCTAT TATAAGGACA TACCACAACA TATTTTATTT ATTCATTCAT
49201 CAGCCGATGG ACATTGGTTT GTTTCTACTT TATGGCTATT GGAATAGTG CTGTTATAAA
49261 CATTTATGTA CAAGTTTTTT TGTAGACTTA TGTTTTGATT TCTTTTGGTT ATATATCTAG
49321 AAGTGGGTTT GCTGGGTCAT ATGGTAACAC TGTTTAACCT TTTGAGGAAT TGCCACATTC
49381 TTTTCCAAAG TAAGCATTTT ATCCTCCTAT CAGCAGTGTA TGAGAGTTCT GATTTCTCTC
49441 CATCTTTGCC TGGGTTTTTG AATCAGGGCC CCAGATAGAA CAAAAATGTG GTTATTCAGT
49501 TGTTCCACCA TCACCTGTTG AGAAGACTCT TTTTTCATTG AAGTGTTTTG GCACCCTTAT
49561 CAAAAATCAA TCTACCATAA ATGTGAGAGT TTATTTCTGG AGTCTCAATT TTATCCCATT
49621 ATGCTATAAT CTATAATCCT ATCTTTTTTT TTTTTTGACA GAGCCTCACT CTATTGCCCA
49681 GGTTGGAGTG CAGTGGCCCA ATCCCGGCCA CTGGCTCCTC CTCCCAGGTT CAAGCAATTC
49741 TCCTGCCTCA GCCTCCCAAG CAGCTGGGAT TCAGGTAACC TGCCACCATT CCTGGTTAAT
49801 TTTTGTATTT TTAGTAGAGA CGGGGTTTCA CCATGTTGGT CAGGCTGGTC TGGAATCCTT
49861 GACCTCAGGT GATCTGCCCA CCTCAGCCTC CCAAAGTGCT GGGATTACAG GTCATGAGCCA
49921 CCACACCCAG ACTATAATCC TATCTTTATG TCAGGACTAC ACTGTCTTGA TTACTATAGC
49981 TTTTGTAGTA ATTGAATTCA AGAAGTTTCT CAACCTCAAA TTTGATCTTT TTTTGGAAGA
50041 CTATATTAGC TATTCTCAGT CTGCTGAATT TCCCTAGGAA TTTTAGGATC TATTATCAAT
50101 GTCTATTCTA TTTTGTGATA TGTTTTAATA TTTTCATAAG AAACTTTTTT CATTTAACCT
50161 TTTTTTTTTT AGAAAAATAG TGAAAATCAG AATACTGGGG GTCAGGCGCA TTTAACAGGC
50221 AGAAGAAGAA TAAAAACTTG TCATATAAAC AAAAAAGAAA TGACCAATCA CATTGTGGAA
50281 GCCATGGAGT GGTATAGGT GCCAAAGGCT GCAGAGAAAT GGTGTCAGAT ATACCTGAAA
50341 ATTGTCCATT GTATTTGGCC ATTAAGAGAC TTAGAAGACT TAAGCCATAG ATTGCTCAGT
50401 GAGACCCCGA GGGCAAATGG TCTGAAGGTG AATAGATCAT TTCACCTTTA AGAGAGCAGG
50461 TAGGAAGCTA TAAATCCAAG ATTAAGAGT TGAAGTGAAT GTTAAAGAAG AAACCTCTAAT
50521 CTTGAGCCAC CCTATCCTTG CTCCACCTTC TGCTGCAAGC AAACAGAAAT GCTGAAATTC
50581 AACACTCACA AAGGCTGGTA AGCTGGAAAT GACAAAAAAT ACTCCTGGGA AAGTCAGATT
50641 TAGAATTAGG CCATATTTGT TGGGGTTCAG ATTTTCATGT ACACCTGGGA AAGGGTTTAG
50701 CTTATAGGCA CATGCATGAA GGGAACTGGT ATAGGGCTGT GTTCATAAGG TCAAGAGTTG
50761 AAGGCCAGGC ATGGAGGCTC TTGCCTGTAA TCCCAGCACT TTGGGAGGCC GAGGCAGGAG
50821 GATGGCTTGA GCCCAGGAAT TCAAGACCAG CCTGGGAAAC ATAGGGAGAT GCTGTCTTCA
50881 CAAACAATT AAAAAATAAA ATTAGTCAGG TGTGGTGGCA CACACTTGTG GTCCCAGCCA
50941 CTCAGGAGGT TGGGAAGATC ACTTAAGCCT GGGACATTGA GGCTGTAGTC AGCCATGATA
51001 GTGCTACTGC ACACCAGTCT AGGTGACAGA ATGAGACCCT GTCTCCAAA AAAGAGCTGT
51061 ATCCACATCC CAGGAAAGTG GTTGAAGATC TACTTTTCTC TGTAACCTA ATAAAGAATA
51121 GAGTGACAAA TGTGTGTTGT GGAAAGAAAT GGGGTGAGAG CTACGTAGAT GCAAAACAAT
51181 ACATCCCCAC ATACCACTTG TTAATCATCC TTTTCCACCC ACTTATGGGA TGAATTGCAT
51241 CTCCCCAAA GATACTCTGT CCTAACCTC AGTACCTGTG AACCTGACCT TATCTGGAAT
51301 ACGGTGAGTT CACTGGTTAA GAAGAGATTA TAGTGGAATA GGGTGAGTCC TCCAACCAAT
51361 GACTGGGGTC CTCACAGACA CAGAGGGATG ATGGCCAGGT AGAGATGGAG GCAGAGATTG
51421 GAGTTATGCT GCCACAAACC AAACACAGGA AGCTGCTAGA AGTGAAACA GGCAAGAAAG
51481 AATCCTTCCC CAGAGGCTAC AGAGGGATCT TGGCCCTGAT AATACCTTGA TCTCAACTGG
51541 CCTACGTAAC TGTGAGAGAA TAAATTTCTT TTGTTCTAAG CCACCCAGTT GATAGTACTT
51601 TGTTACGGCA GCCCTAAGGA ACTTGATATA CATTTCTTTT ACTGTCATAG AAGTTTTGAA
51661 TCTTTTAAGT AGGTCTGTAC CCTTCCTCCC AGTGTCACCG CATGGAATTC CTCTCCTTGT
51721 GCCTTGAAAA GTGAAAGGTG TTTGAACTGG TAATGAAAGA AATCTCAGCA TGAGGCCAGA
51781 TGCTGTACCT CACACCTGTA ATCTCAGCAC TTCGGGAGGA TGAGGCCGGC AGATCACTTG

```

Figure 9 (Page 16 of 74)

105/162

```

51841 AGGTCAGGAG TTCTAGACTA CTCTGGCCAA CATGGTGAAA CCCCATCTCT ACTAAAAACA
51901 AAAAATGTTA TCCTAGCCGG GCATGGTGCC TGTAATCCCA GCTACTCAGG AGGCTGAGGC
51961 AGGAGAATTG CTTGAACCCG GGAGGTGGAG GTTGCACTGA ACTGAGATCA CGCCACTGCA
52021 CTCTAGCCTT GGTGAGAGAG CAAGACTTGG TCTTAAAAAA GAGAAAAGAA AAATGAAATT
52081 TCAGCATTAT AGAATAAAAA TGTTCCTTCT TCCCCCCTT CTTTAAAAAA GCAGAAGTCT
52141 GCATCATAAA ATGGTCCTTG CCAATGTTAT TTTTATTATA ACAAAGGAAT CTTGCAAGGC
52201 TACCAGATCT CAGCAATTGT CACTATGTTT TGTAATAATC ACTTCCTAAA ATGTCTGAAT
52261 TGAATGCTTG TCTCATTTAT TTGTTTCTCG TGTCATACTG CAATGGATAT CTGTCTTGTT
52321 AGTATAAATA TTTGTGCATT TTGTTGTTGT TAAAACAGCT TTTTGGCCT GTCTTCTTCC
52381 ACCATGAGG TAATATAAAA CTCATGTTTA ACACTTATTT TTGTAGGAGG ACAAGCTACA
52441 GACAAAACCC CTCAGACACT GAGTTAAAGA AGGAAGGGCT TTATTCAGCT GGGAGCTTTG
52501 GCAAGACTCA CATCTCCAAA AACCAGCTC CCTGAGTGAG CAATTCCTGT CCCTTTTAAG
52561 GGCTTGCAAC TCTAAGGGG TCTGTGTGAG AGGGTCATGA TCGACTGAGC AAGTGGGGGT
52621 ATGTGACTGG CAGCTGCATG CACCAAGTAA CAGAACAGAA CAGGGATTTT CACAGTGTTC
52681 TTCCATACAA TGTCTGGAAT CTATAGATAA CATAACCGGT TAGGTCGGGG GTCAATCTTT
52741 AACCAGACCC AGGGTGCAAC ACCAGGCTGT CTGCCTGTGG ATTTTCTTTC TGCCTTTTAG
52801 CTTTTACTTT TTTCTTCTTT GGAGGCAAAA ATTGGGCATA AGACAATATG AGGGGTGGTC
52861 GCCTCATTTA TTCACCCCTT TTGAGAATCT CACTCATTAG TGGGAGTTCT CACTTTTATT
52921 CTCCTACCTT ATGCTTCTTT GAAAGACAGA TTGATAATGA TTCATATAGT ACACCTGTGC
52981 TGAAGCATTT TGGTGAGCTA AGGTAGTGAT GAAGCTTTT ATCATTTGGA GAAGTACAGG
53041 TAGCAAACAA GGAAGCAGTA AGCAGGTTTC TATTAATATT ATAACCTCCTA TTATAAGAGT
53101 TTTAAATCTT CTTAGCACTC GGAACCATTT TTCAAACATG GCCCCAGAAA CAAATCCATA
53161 CCACACCTAC ATGGGCACAT GTGCCACTTT TGTCATATTT CTAACCTATG CTTCAACTAC
53221 TTGCCCTTAA TCATCTATGT GTAGACAGCA ATTAGTAAGG TTAAATTTCC TACAGACCCC
53281 TCCTTCAGTT GCTAGCAAGT AGTCGAGAGC CAATCCATTT TGATAGATAG CATTTCGCAT
53341 CTGAGTTTCT TGCCAGGCCA CAGTAGTCAG GGCTCTGCTG GTCTTATTAG TAATTATTTT
53401 TAAGACAGCT TGTAACCGTA TGATTAGTTC GAGCATGTAA ATGGGGGTCC CATATCCCCA
53461 CAAGCCGTCT TGTGCCCAAG TAGCAGGCCC ATAATATTGT ATGATTCTCT CAGGGGGCCA
53521 TTCATTATTT TTCCAATTTT CTATAGCTAT GCTTTTTTTT TTTTTTTTTT TTTTTTTTTT
53581 TTGCGGGAAG CATATACAGG GAAGCCAGG AGTTTGCTG TCTTTATGGG CAGTAGGAAG
53641 AAAGATGGTT TAATAGTGTC AATAACACAA CTACCTGCCC ACTGGTCAGG TAATTTGGCA
53701 TAAGCTGTAT GCCACATAT CCAGTATAAT CCAGTGGGGG CTGTCCAGTC CCGGTGGGAC
53761 TCTGGGTGGG TCCACACAGT TTGCAACTTT GGGAAATTTAC TAAATAGATT TTTCTTAGTG
53821 TGGTTTGAAC TCCACTAGGT GGCTGTTTTT ATAGTACTAT TATACAGTTT TTGCCCAAGG
53881 CAGCTGAGTC TTCCCACAGG AAGGGTGAAG TCCTTCCCCA CTTTGTCTAT ACAGTATTGT
53941 CTAATGATTG AGGCTTTTAG GACCCAGAAG TTATCAGGGT GAGTCTTTTG AGCTGGGAAT
54001 TTATCAGGAA CTGGGTCTGT AGGTACTAAT TCTCGTGCTT CCCATGGCCA TTGATCTCCC
54061 ATTACAGTTC CTCCACATAC ATACATAACA TGAAGTGACA TTGAGAGACT GGGCTACATG
54121 CTCAGCTAAT TGCAAAAACA AATTTCTTGT TTTTCTGGA ATTTCTAGTA CTGGCACATT
54181 CAGTTCATCA TAAGAAGGTT TGAAATACTG GCTCAGGGGA GCATTTATAA ACTTCTCCTC
54241 AAACCACCAT ATTTACTCAA GGATCCAGTC CAGCCCCAAC TATTTCTAAG GTTACACGAT
54301 CCCCTTTTTT CCAGTGAGAA TCAAGGGGGT TGGTTATTAC TAGTTCTAAG GGGTTACACT
54361 GACCACTGGT ACAGGAAGGG CCACTTTCTC CTTTCTGAAG GTGGACAGGA TTCTTTTTAT
54421 TTTTAAACCA AGTTGCCTAA ATGACACAAG ACCAGTATCT ACATTTATTT CCACGCAGTC
54481 TTAATTCATG ACAAGCGTAC TTATTTCTCG CCATATAGCC TCTTCTCTAA TGAACAGAAC
54541 CACATCCTAT TTCTAATTTA TTACTATTAA TGACAGCACA GGCATCAAAT TTCAAGGTGA
54601 CTTGTTTGGG CATTCCTTTT TCTTCTGTTT TGGCTAACAC TTTACTCGTA TCGTTTATGA
54661 ACCCCCACCA GTCTCAGTC CTCAATCTTA TTTCAAAAAC TGTGGTCGTG GGAGGCTCAG
54721 ATGGGTCATA ACACACATCA GGTGGTGCAT TTCTTGGGCT ACCTGCCTTG TATAGAATAG
54781 CATTATACAA ACAAGTTATT TTTAGAGTCT TTGTACACTT ATAATAACCA TAAATAATA
54841 AGACTGTAGC AACTTTTTGT CCTACCTCAG TGAATTTGATG TATACACTGG GAACAGCCCT
54901 CAGTCTGAGG AAGGTTAGTT GAAGTCTTTA CTGTGCAAGT CCAAAATTTTA AGGAAAATGA
54961 GTCCCTTGAT GAGTTTCTC ATGTTTCGGC CATGCATGGA CCAGTCAGCT TCCGGGTGTG
55021 ACTGGAGCAG GGCTTGTTGT CTTCTTCAGT CACTTTGCAG GCGTTGGCGA AGCTGCCACG

```

Figure 9 (Page 17 of 74)

106/162

```

55081 TACAGCTCAC AGTCTACTGA TGTTCAAGGA TGGTCTTGGA AGTTGGGCCC ACTAGAATTA
55141 ACTGAGTCCA ATACCTCTAC TCAGTCACTT TCAACTGGGC TTTCTGATAC CAGGAGCAAG
55201 GTGGCAGGTT TTAGGGTGTT GCAAATTTCA ATGGTTATGC AGGGATTTTC ACATAGCAAA
55261 CTTTGGTACT TGGTTAATCT AGCATTGTGT AGCCAATGAT GTATTTATTA AAGTCACCAC
55321 AGCATGGAGG GCCTTTAAGT TTAGGTTTTG TCCAAGAGTT AGCTTATCTG CCTCTGTGTC
55381 TAGCAGGGCT GTTGCTGCCA AGGCTCTTAA GCATGGAGGC CAACCCTTAG AAACCTCATC
55441 TAGTTGTTTT GAGGCCCAGC CTCGGCCAGG GCCCCACAGT CTGGGTCAAA ACTCCAACCG
55501 CCATTTTTTC TCTTTCTGAC ACATAGAGTG TAAAGGGTTT TGTCAGGTCA GGTAGCCCCA
55561 GGGCTGGGGC CGACATGAGT TTTTCTTTTA ACTCATGAAA AACTCATTGC TGTGTTGTGT
55621 AATAGATGTA GTTTATCCAA TCTACATTTT TATTAAGTGT CACCCACCAA AATATTGACT
55681 CAAATCCTGC AGCTATTTGA TTTTGGGATT TAAATTGATC TGCTATTCCC TGTGGGACTC
55741 CAATTGCATC TAAATAGATG TGAGAGTTGA AAGACACATA AGGGTCTTCT CTGTCTTTAC
55801 GATGTCTTAT TTTTCTCTCC TCTGGTTGAT GAAATGCTAG GGTGAAAGGG ATAGCCAAC
55861 GGACTAAAGT ACAAGTGCCG CTCCAGTTAT TTGGCAGAGT GCCCAGTAAA GGTCCACCAC
55921 AATACCACCA CACATCCGCT TGGGGATGAA CAAAGGCTGA CTGATTGAGA AGCTCCTGAA
55981 AATTCTTAAG CTCACTGCAT CCCTTCAGGT CTCCAAGGAA TGCTAAGTTT CCTCCCTGTC
56041 ATGAGAGACA AGAAGTGAAC TTAGTTTTGG GAGATGGAAG CTGGATGGCC CTCAGGGGTT
56101 GACCTGCAGG GTGCTGGACT TTGGGATATA GCAGAGAGAG CTTGGCACGA CTTATTACTC
56161 CAGGCTGTAG CATCCTGGAA AACAGTTACC ATGCAGCCCA TGCCTGGTCA ACAGGAGGAC
56221 CACCTTAGTG GAAAGGGGAT AATCTGGCCC TCTGGCCTGC CATGTGCACA AGCATAACAA
56281 TTGGTTTTGT TTAATGTGTG GACAGAATAT TTGATCCATT CCAACTGGGC ATTTGCATCT
56341 TGGTATCCTG CTTAATTATC AAAGTTTGTT TTAAGTCTTT AACTTCTATG ACCCTCTAGT
56401 AAAATGAATG TATGATTTTA GGAAATTACA AAAACCGGTT GGGGCAGTCC ATCCTCGCTC
56461 TTTAGTGGTC CACACAACAT TCGACCAACT ATGGCATAAA AGCTCTACAT CAGGGGGCAA
56521 GACTCCTCGT TGACACTGGG GTCTTTATTG AAATCTCTCT GGATTAAATG GTCTCAGTTT
56581 ACTAAGGCTC AGTCTGAGGA GAGTCAGGAG GGACAGAGGT ACTTTTCTGA AGTACAGAGA
56641 TGTCTTCGAC TTGGCAAGTC CCCACAGGGT ATAACAAGGC AAGCATTAAA TTCAATAGTT
56701 TGAGGCAAAA TTGACTTGGT TATGTTAATA ACTAGATGGT CAGAAATAGA GTGAGGGAAG
56761 AAGAAAGAGT AATAGAATAG ATGAAGGAGT TAAATTTTTC TTAGCTTTAG TTTGGTAGGG
56821 TTTTCCCCTG GGACTATGGC CCATGACTCT GGAGGGGGTG GCACTTTCTT GACTCGGGTG
56881 TGATGAGTCC ATCCCTTTTT CACCGTATGA ACAACAGTCT CGGTGGTTAG CAGCACAAGG
56941 TAGGGTCCTT CCTAGGCTGG CTCAAGTTTT CTTCTTTTCC ACCCTTTGAT GAGAACATGA
57001 TCTTCAGGCT GGTGCTGGTT TACAGAAAAT TCTAGGGGTG GTACATGTGC TAAAAGACTT
57061 TTAGTTTTGA GGGAAAGGAA AGTGGAAGAT AAACCAAGTA TATACTTTT AAGAAGTTGA
57121 CCTTTTGTTT TAAATGTGGG GACATCAGCA GTGGACTTTA TAGTCCTTGG TGCCTTCTTA
57181 CTGAGAAATT TCCTTTAGCA CCTATTTTTT TTAGTTTTTA GACCAAAGAA AGTCAAATGC
57241 CATTTTATAT TTGACAACGC TTCTTGATATG TTTTATACCAG ATAAGCTAGA TTTACCTTTT
57301 ATATTGGTGT GTTATTAATG TTAAACTTAG TTTTAATAAA ACTCTGTAGA CATATTTATT
57361 TGATTTTTTA TGTCTGACCA TAAGGTAAGA TTTTATAGA CTTTTCTTTA ACCTTTTATA
57421 ATTTTGTGTA AAGAACAGGT TAGTGCTTTA AGAAAAACCC GTTGTGTTTT TATTTTAATG
57481 TTCAGTTCAC AGAAAACTG TATGATACCC CTTAACTTTA GCCAATATGT TTAGACACAG
57541 AATTTTCTTT ACAATTAAGG TTTCAAACT TGCTTAAACC TTCAAAACAA TTTTGTAAAC
57601 CTTTTAATGT AGGTAAAAAT CCACATTCTT ATGCATCCTC ATAATCCTTT TACCAAAGGT
57661 ATATTTTACT TTCCTTACAT ACCTTGACCA TAACTGTTT ATTCAATAGT TTTACATTTA
57721 GAAGGAGGCC TAATTACTTT TAAATTATAC AACATTTCTT GCATAAATTT ATTTTCTAA
57781 CACACATTTT TTTTATGACT TTCACAGACA ATTCTTCGAC ATGCCTCAAC TTTCTGACTT
57841 ATTGCAAACA TCCCTTTCTT TAAACAATA GTTAATTTAT CTCAGGACAA GGATTTTCCA
57901 TACAACATTC TTTTTTATAT AAATTCTGCC TCCTCTTTAT TTCCTTTTTT TTTTCCGAG
57961 GATGATAACC ATTCTTTTCC AAAGCGAACT TCTTTTATGT CTGTGGACTA GACTGTCTAA
58021 GGCCACAAGA TTAGAAGTTA CTATAATACA TGTTACACTG TTAACCTTTA GCAAACCTTA
58081 CTTTGTGTTGA AAACCTTGTA AGTTTGGGAT TTCAATTATC CTTTGCTATT AATAAGACCT
58141 TTTTAGTCC AAATTAACCT AGAATTGGTA TAGATGGCTT TTTTTTTTTT TTTAATTACC
58201 TGGGAGGAAC CATCTATCCT CCGTGCCTGA AGGGAGTTCC TCCTAGGTCT GGTGAGAGCT
58261 TTGTATGGTA ATTAAGATTT AGATCCCCTG TTAGGAAACC TGCCGGGTGA AGAGAATTTT

```

Figure 9 (Page 18 of 74)

107/162

```

58321 CAGTGGTTAA TGTTAAATCA TCTTCTTTTT TCTTTTTTCC TTAGGATACT TCTGAACCGG
58381 TGAGGTGTGC TCACAATGAG GTTTCCTGTA AAAGTTATTT TTTTACTTTC TTCTGTTAGC
58441 AAAGCAGTTG CCGCTACAGA TTGAATGCAT TTGGGCCATC CGCGGGTTAC TGGGTTAAGG
58501 ATTTTTGATA GGAAGGCCTT AATGCTTTTG GAATATGCCC TGACAACAAA GTGCCAGTTC
58561 CTTCCCGGTG TTCAGCCACT GCGTTGATCC TCCACGAGGG CCTGCCACGT GCTGCTCTGG
58621 TGAGGCGTTC CACCGGGGCA ATTGCCTACC TGGGAGCGCT CTCCAGATCT GTGTGCTCA
58681 AACTGGCTGG AGTTCCCCGT AGGGATGCTC CACAGGGCAG GCCTAAGTCG CCTAAGGGGC
58741 TGCCTTGACC GTCCGTTAAT CACCTCTGTC TCCAAAAACC AGCTCCCTGA GTGAGCAATT
58801 CCTGTCCCTT TTAAGGGCTT ACAACTCTAA GGGGGTCTGC ATGAGAGGGT CGTGATTGAT
58861 TGAGCAAGCA GGGGGTACGT GACTGGGGCT GCATGCATCA GTAATCAGAA CAGAACAGAA
58921 CAGCACAGGG ATTTTCACAA TCTTTTCCA TACAATGTCT GGAATCTATA GATAACATAA
58981 CCTGTTAGGT CAAAGGTCGA TCTTTAACCA GACCCAGGGT GCGGTGCCGG GCTGTTTGCC
59041 TGTGGATTTT ATTTCTCCCT TTTAATTTTT ACTTTTTTCTT TCTTTGGAGG CAGAAATTGG
59101 GCATAAGACA ATATGAGGGG TGGTCTCCTC CCTTAATTTA AACAAAATTT TCAAAGTCCT
59161 ACCCCAAGTA AATTGGCAAA TATTAATAAA GTTATGGCAT AGAAAATAAA AATGATTGTA
59221 AAAGGCGTAA AGATATTTCT GTGGGGAAAA CATTGTGTTCA TTAGTTATCA GTTAAATTC
59281 TGTGAAAAAT AACCCTAGTA GACCCTAAAG TACCCAGGGG CTAATAATAA GAAGGGAGGA
59341 ACACCCTCTC AGTCCCCACC GTTACCTCCC CAGAAGGGAA GAGGAAGAGG GTGACTCCAG
59401 GAGAGCTGTG GTCTCCCCTC CCCATATGTC CACATATACC TGACCTCCCC TCCCCAAAT
59461 ATATACCCAA TATCTCTCCC ATATATACAT ATTTATCTGA CCTCTCCACA TATGTATACC
59521 TAACTTTTCT CTATATATCC ACATATACCT AACCCTCTCA CACACATATA GCTGACCTCC
59581 AGTGGAGGAA AATGGGGAAG AGAGAAGAAG TTATCAAAGG ATAAATCTAG GTCATACTCA
59641 GAAATGTGAA AAACAAAAAC CACACACAGA AAAAAAAAC ACACACAAA AAGAAATTGA
59701 TAAATTTGTT TGTGTCAAAA TTAAGAATTC CGGTTCAATG AAGGATCCCA TGGATAAAGT
59761 TAAGACACTG CTGTAAGGAT GGTAGAGAAT TAAATGTCTG AATCAGACGA AAGGATGAGT
59821 AATTAGAATG CACAAGGCCA AGAAGAACAA AACAGAACT CCACATAAAA AATGTATGAG
59881 GCCGGGCGCG GTGGCTCATG CCAGTAATCC CAGCGCTTTG GGAGGCCAGG GCGGGCCGAT
59941 CAGGAGTTTG AGACCAGGCT GGCCAACATT GTGAAACCCC ATCTCTACAA AAAATACAAA
60001 AAATTAGCCG GCGTGGTGG TGGGTGCCTA TAATCCCAGC TACTTGGGAG GCTGAGGCAG
60061 GAGAATCACT TAAACTCAGG AGGCAGAGGT TGCAGTGAGC TGAGATCACA CCATTGCACT
60121 CCAGCCTGGG TGACAGTGTG AGACTCTGTC TCAAAAAAAA AAAAAAATTA TATATATATA
60181 TATATATATA TATATATATA TATATATATA TGAAATAAAT GAACAAGAAA TTTAGATACA
60241 GGAAATCCA AAGCACTTGG TAATGAAAGA AAGGTAAAGT GATGTGTCCT TTTGCATTTA
60301 AAAGAGAGCA TTAACAAATT AGAGAGCTGA ATAATGCTCA GTATTGGTGT GGATATGGAG
60361 ACTCAGGAAT CCTCATACAC TGCTGATGGG AGTGCCCACT CCCTGGGAAT ATTTTCCAAA
60421 TATCATCTCA AACATATCCC ATAAAGGTGA CAGGAAAGTG TGGGCTGACT GATATCCTTC
60481 ACTGAGAGAG GTGGAGGTAA AATGAAGTCA CTGCACAATA TAGAGTTGGA AGCAATGGAT
60541 TAGATGTCCA CATAGTTACG TGGAAGAATC CGTAAGATAC ACACACACAC ACACACACAC
60601 ACCTTTGTGT ATATTGTTCC TGGCAGGTAG GCATGGAGGT TTAGAGGCTT TCTACATCAC
60661 ACCTACTGCA CACAGTAAAT GGCCAGGCTG AGCACTGACT TCCATGAAGG GAGATTGAAG
60721 GTAAGAGATT GAAGATTGTT CCCTGGTCTG GGACCCTGCA ACTGAATATG CAGAAAAAAG
60781 TACACCCCGC CACCCCGCTT CCCATCTTTC CTACCTGATT AGAATAGCTT TTTTCAGAAA
60841 CGTTGGCCAG GGGTTGTGGC TCACACCTGT AATCCCAGCA CTTTGGGAGG CTGAGGCGGG
60901 CAGATCATCT GAGGTCAGAA GTTCCAGACC AGCCTGGCCA ACATGGCGAA ACCCATCTC
60961 TACTAAAAAT ATAAAAAATT AGCAGGGCAT GGTGGCACAC ACCTGTCATC CCAGCTACTC
61021 GGGAGCCTGA GGCAGGAGAC TCACTTGAAG CACAGTGATG GAGGTTGAAG TTAGCTGAGA
61081 TCTTGCCACT GCACTCCAGC CTGGACAACA GAGTGACACT TTGTCTCAAC AACAACAACA
61141 AAACCCACCA AAACTTTAA TCTACCTATG GCCAAATGCC TGCTAAAATG AGCACCACAG
61201 AAGCAGTGTT CAGGAAAGTC AGATGAATAC CCTAAAATTA GATGCAATGT TGGCTGGTCA
61261 CAGTGGCTCA GGCCCTGTAA TCCCAATCCT TCTTGGGAGG CCGAGGCGAC AGATCGCTTA
61321 AGCTCAGGAG ATCGAGACCA GTCTGGACAA CATGGTGAGA CCGTGTCTCT ACAAAAACGT
61381 ACAAAAATGA GCTGGGAGTG GTGGCGCACA CCTGTAGTCC CAGCTACTCA GGAAGCTGAG
61441 GTGGGAGGAT CTCTTGAACC CAGAAGGCGG AGACTGCAGT GAGCAGAGAT CATGCCACTA
61501 CACCCAGGCC TGGATGATAG AGCCAGACCC CCATCTCCAG AAAAAAAT AAAGAGAGAG

```

Figure 9 (Page 19 of 74)

108/162

```

61561 AGAGATGCAA TATTTAGGGT TCAACAAGAC TGAACCTCTG ACTCCTTTCC CTACCTCTCC
61621 AGCATGTTAG ATTCTGGGTC CTTTCATCTA ACCCCCTGTT CATGCCATAG CCACCCTGTG
61681 GTACCAACTT TGGAAGCCTG GATCTTCATC CCCTCATGAT AATGAGTGTC CCATTTCAGGT
61741 CTCCATGCTC AGCTTGGCAA GAGTATCTGT CTTCTCCTCA TGGGACGGTC ACATTTCACCC
61801 AGCACTGACA GGTTCCATT CCACTAGGGT GGCACCCTAT ATGGTCTGAG TCCAGGCCTT
61861 CCTGGTCCCT CAGTAATCTC AGCATGGTAG CACAATCGAA AAGGGCTAGG CACGGCAGCA
61921 CCATTTCCCA CCAAGAGGTC TGATGGCTCA TCACATAGAC TGAAGGAGAT TCTGAAGAGC
61981 AGAGGTGGAA TGAAGAATGA ATCCTGGGCT CTGCTCTTCC TAGGCCTGTC TTCCTCTCTC
62041 CCGAGATGTT AGCTAACTCA TGAGAGCCAG AAACCAACTG CAGGCTGGCC TCAGGCACTT
62101 AGGTAGTGCT TCAGCCTCAG CAGTCCACAT TCTAGGAACC CTCATAATAT GGGTTGAAGT
62161 ATGCATTCCC AAAAAATAA AGTTGTTGAA GTCCTAACCA CCAGTACTGA AATGGGAAAA
62221 GTTCCCTTGT CCCGCTCGCA TGGCATGTGA TAGGAGTGTG GCTAATTTCT TCAGTGCCTG
62281 GCTGCTCAAA CCTCTAGGGG AACAGTAAGA CGGGCAGGTT GTGGGTCTCC AACCCCATGA
62341 CCCCACCACA GTGTCTAGGG TTGAATGTTT ACAGCTCCTG AAGCCACAGT GGGTGTGTGT
62401 TACAGGGTGC TCTTTTAGTT TTGCCATTTA TAGGCAGCTG GTGTTAACCA ACTCAATTAG
62461 ACCGTCTACC TTGTCCCAAG GACAGAAGAA GGCTTTCTGT ATCCCAGGTT CTTGCCTTGG
62521 TGTACCGGAA TAAATCAGAC CACACCTGGG CTTAGAGAAA GAGTGCAAGG TTTTATTAAG
62581 TGGAGGTAGC TCTCAGCAGT TGGGCAAAGC CAAAAGTGGA TGGAGTGGGA AAGTTTCCC
62641 TTGGAGTCAG CCACTCAGTG GCCCAGGCTC TCCTGCAACC ACCCCAGTCA AATTCCGCTT
62701 CATTTTGCCA GGCAAACGTT TGTGTGTGTC TCTTCTGCCA GTGTGCTCCC CTGGACGTCC
62761 AGCTATTTCG GTCTTGTGGC AGGCCAGGGG AGGTCTTGGG AAATGCAACA TTTGGGCAGG
62821 AAAACAAAAA TGCCTGTCTT CACCGTGGTC CCTGGGCACA GGCTGGGGG TGGAGCCCTA
62881 GCCGGGGACC ACGCCCTTCC CTTCCCCACT TCCATATCAT TTAAGGGGAC CATGCCCTTC
62941 CCTTCCAGC ACTTTCCCCC TCCTGTATCA GGACCTGTGA ATGTGGCCTT ATTTGGAAAT
63001 AGGGTCTTTG CACTTCATCA GTTAAGATAA GAGTGGGCTC TAACCCAACA TAAAGGGTGT
63061 CCTTATAAAA AGGAGAAATG TCATACACAG AGACTGACAC CTATAGAGAG AAAATGTGGT
63121 GAGTAGACAC AGGGAGAATC ACCATTCAAG TCAAGCAATG AGTCTGGGGA TACCAGAAGC
63181 TGGGAGAGAA ACCTGGAACA GATTATCCCT CATTGCCTTC AGAAGGAATC AAACCTGATG
63241 ATACTTTGAT TTCAGACTTC CAGCTTCCAG GACTGTGTGA CGATAAATAT CTGTTGTTAA
63301 GCCAACAAGT TTGAGGTACT TTGTTACTGC AGCCCCAGAA AACTAATACA GTAGGTACTA
63361 TGGACTGAAT TGTGACTCCC CGTCGCAAAA TTCATATGTT GAAACCCTAA CCCCCAGTGT
63421 GATGGTACTT GGAGCTGGGG CGTTTGGGAA GTCATTATAT TTAGACAAAC TCATCAGGAT
63481 GTGTCTCTCA TGATGAAATT CATGCCCTTA TTAAGAGAGA CAACAGGCCA GGTGCAGTGG
63541 CTCATGCCTG TAATCCCAGC ACTTTGGGAG GCTGAGGTGG ATGGATCACC TGAGGTTGGG
63601 AGTTTGAGAC CAGCCTGGCC AACATGGTAA AACCCTATGT CTAATAAAA TACAAAAATT
63661 GGCCAGGTGT GGTGGTGCAC GCTTGTAATC CCAGCTACTT GGGAGGCTGA GGCAGGAGAA
63721 TCCCTTGAAC CCAGGAGGTG GAAGTTGCAG TGAGATCACA CCACTGTACT CTAGCCTGGG
63781 TGATAGAGAC TCCATCTCAA AAAAAAGAGC AATAGAGCCA GGTGCTGCAG
63841 CTGATGCCTG TAATTCCAAC ACTATGAGAG GCTGAAGCAG GAGGCTCGCT TTAGCCCAGG
63901 AGTTCAAGAC CAGCTTGGAC AAAATAGTGA GACCCCAAC TTCTAAAAAT TTAATAAATG
63961 AACTGGGTGT GGTGGTACAC ATCTGAGGCT CCAGCTACTC TGGAGGCTGA GGTGGGAGGA
64021 TTGCTTGAGC CCAGGAGGAG GCTGCAGTGA GCCATTGCTG TCCAGCCTGG GCTACACGAG
64081 AACCTGTCTC GGGAAAAGGA GAAAACAGTG AGACCTCTTT TTCTCTCCTC CTTCTCTCCA
64141 CTGCCTAAGC CCTACAAGCA CAAAAGGAC ACCACATGAG CACATAGTGA GAATGCTGCT
64201 GCCACCAACA AGTCAGGAAG AGAGCGTTCA CCTAGAAACT GAATTGGCCA GCACCTGGAT
64261 CTTGGACTTC TGAGCTTCCA GAACTGTGAG AAAGTTATTT TTTTTTTAGC GACTAAGTCT
64321 ATAGTATTTT ATTACAGCAG CTCAAGGTAA CTAACATAGT AGAAGGGATG AATTATGGAG
64381 ATCACAAGTC CACGCCTCCA GAAAAAGACT TCCCTAAAAA TTAGTCTGAG CAAAATTCGA
64441 ATGATGAATT ATTTTAAAGA ACTTTTAAGG GATCTGACAA GTTTGCAAGA GCTAGAGAAT
64501 GCTTTACAAC GTGATAATAG AATGCTCTGT GATGACAGAA ATCTTTCCAC ACTGTTCAAA
64561 ACTAGCTACT GGCCACTTGT GACTATTGTG CACTTGAAAT GTGACTGGTG TCTGAGGAGC
64621 AGAATGTTTA ATTTTACTTA ATTTTAATTC ATTACAATAG CTACATGTAG CTAGGGGCTA
64681 CTGGATTGAA CAGCACAGCT CGAGTCTTTT AGAGGGAGAC AGGACTCACC AAGGTGGATG
64741 CTGGTGGCCA AGCAGCAATG GCAGGTAGTA CACACACAAG AGGCAGATGA TACAACACAT

```

Figure 9 (Page 20 of 74)

109/162

64801	CCTTCCCAAA	CCTGGAGATA	AGCTCACCCC	ACAATCCCGC	CGCTGAAATA	GAGTTGATGT
64861	TACCAATGTG	CATTTTTATG	TCCTTTTCCA	TACAGAAAGA	TCATTCAACA	AGTACTATGG
64921	TACTTAAAAA	ACAACATTCA	ATTCATTATT	ATGACAAAAT	TAAATTAATA	GCTCTTCCTT
64981	AAACTTTTAA	ATTCAATTTA	CAATGCTTAC	TATTGGCATT	TATTAATCTA	CCAATTTTTT
65041	CCCATAGAAC	CCATAGAACA	AATAATCTAC	CAAATTTTTA	ACATTCATTT	TTGGCAAGGC
65101	TTTTGCAATT	TGACGAACTT	TAAGAAGAAA	ACTTATAAAT	TGCAATTTTT	AAATCTGACA
65161	TACTGGACTT	TTAAAGTATC	CAATTGACTA	ATGAACAAA	CTGCTCCAAA	TTTTTCAATT
65221	CTTAAAAATC	TTAAGACAAT	ACTTAATATG	GCAAATCTTA	ACTTCTTAAA	CTTTGTAAAG
65281	ATGCTAATCA	ACTTAGATTG	GTATAAAGTT	GAGTTAAAA	TCACAGGATA	CATCATCTCA
65341	GCTATAAGTT	TTCATGAGTT	GAGTTTTTAC	AATCACTTGA	AATGCTTAGA	ATAGGAAATA
65401	CGTATAAATT	ATTTAACATA	AAATATTGTT	ACAAAACCTC	TGGAGTGTCA	GTTTCTCTGG
65461	CCAGACTTTA	TGCTGCAGCA	CCTTTGCCTG	AGTTCCTGTG	CTGCATCCAG	GAAGAATTAG
65521	GTACAGAGGC	AAGAGTCAAG	AAGATTAGTT	TTCCAATAGT	TCAGCTCACC	TAGTTAACTC
65581	CTGTTCACAA	TCTTCAAAGT	TATCAGAAAC	CTGCAATTGA	GGGTATAAAT	CCATTCTTTG
65641	CAGAGTTTCA	AAACAAGACA	ACATTTGTCT	ATGAATGTTA	AAATGTCCTA	GGGTAGTCAC
65701	AGTCAAAAAC	ACAATTGACA	AAGAAATTTA	GTCACTCTG	TGATTTACAA	TAGCCTAACA
65761	CAATAACTCT	AATTATAACT	GATGACACAA	ACTCAGATAT	CAGAACTCTA	GAAATCCCCT
65821	ATAATTTTGG	AACACATATT	CACAGTTTTT	ACTGAAATAT	GACCTGAAGA	TCAAATATCA
65881	CCTTATTTCA	ACAATCCTAT	ATAACTAAAC	GTGTCAAATG	ATCCTGTTTA	CCTCTCCTTT
65941	GGATACTCCA	GGGGCCCTCT	TAGCATCCA	AAAGTTAGGG	GTTAGCAAAG	ACAATTTTGA
66001	AGCTGTAAAG	GCTCAAAACA	CTTAATGAAC	CTCTAGTCAT	ATCTGTTCTC	TACTACTATA
66061	ATGCTAGTAG	CACCTCTCAG	TTGTGGCTAA	GCTGGGAGGA	TCTCTTGAGC	CTGAGAATTT
66121	GGGGACGCAG	TGAGCTATGA	TTATGCCACT	GCCTCCAGC	CTGGGCAACA	ATGCAAAATC
66181	CTGTCTCAAA	AACAAAAACA	AAAAACAAAT	TGCCATATGCT	GTGGTTATCT	CACAATTAAT
66241	AAAAAGGAAA	AAAAAGTAT	GCAGTCTTTG	TAGGTCCTTG	GGGTTTGTTG	GAAGTCAGAA
66301	AACAATACCC	CAAATAAAG	ACCGCAGAAG	CCAAAGTTTT	TCTCTGATCT	TCTCCTGCCC
66361	TCCTGTCTCT	GAGTCCCAT	CTCCCCGGAG	TCTAGCCATA	GAAATGAGAA	TTCTCTTTCC
66421	TCAAGTTAGG	TCATAGAAAT	CAAAACACCT	TTTCCCCAGA	GCCCAGCCAT	AAAACCTAAA
66481	AATATTACTC	TAACTTTCCC	TCTGTTTTTC	TGTGTAAAAA	CTGGCCATAA	AGAAATTATC
66541	TGAACACCT	TATTTGATCA	TAGATCACC	GACCGCATTC	CAGAGAGGAT	CCAGAAGGAA
66601	GGAATGCTGC	ACAGAGAGGC	CAAGAAGAAT	CTAGACAGAC	AGGCCTTGCT	GGGTTTCCCT
66661	ACTCTGTTTA	TTAGCAATCC	TATTTCTACA	CGGCGGCCCA	TACTTTGTTG	AATCTAAAAA
66721	ATAAAAATGG	ACAATTTCCC	CTGTACATGT	TAATACACAT	TAATAAATTG	GATATAAATT
66781	GGATAATTTA	TTAATATACA	CATTAATAAA	TTGGATGCAG	CCGGGTGCAA	TGGCTCACGC
66841	CTGTAATCCC	AGCACTTTGG	GAGCTGAGGC	GGGCAGACCA	CGAGGTCAAG	ACCACCCTAG
66901	CCGAAATGGT	GAAACCCCGT	CTCTATTAAA	AATACAAAAG	TTAGCTGGGC	GTGGTGGCAC
66961	ATGCCCTGTG	TCCCAGCTAC	TGGGGAGGCT	GAGGCAGGAG	AATTGCTTGA	ACTCGGGAGG
67021	CGGAGGTTGC	AGTGAGCCGA	GATTGCGCCA	CTGCACTCCA	GCCTGGTGAC	AGAGTGAGAC
67081	TCCGTCTAAA	AATAATAATA	ATAATAATAA	TAATAATAAT	AATAATAATA	ATAAATTGGA
67141	TGCATTTTAT	CCTATTAAATC	TTCTCTTTGT	CGGTGGTTTT	CAGCGACTCT	TCAGAGGCCA
67201	AAGAGTAAGT	TTTCCCTTAG	CCCCACAGG	TTCTTATGTT	TAATTTGTTA	CTCTCATTTA
67261	AGACATAATT	AAAGTGGCTT	CTCCATGAAG	ATTATTTCTG	CATCCATTAT	TTGGTAAGAT
67321	TGGCCGTTTT	CTCCTTTGAT	CTCTACTTCA	CACCTGACCA	CATAAAACAT	CACTGCCTGT
67381	TTTTTTGTTG	TTGTTGTTTG	GAGACGGAGT	CTTGCTCTGT	TGCCCAGGCT	GGAGTGCAGT
67441	GGTGTGATCT	CCGCTCACTG	CAAGCTCCGC	CTCCCGGATT	CACGCCATTC	TCCTGCCTCA
67501	GCCTCCTGAG	CAGCTGGGAC	TACAGGCACC	CACCACCAAG	CCCGGCTAAT	TTTTGTATTT
67561	TTAGTAGATA	CGGGGTTTCA	CTTTGTAAAC	CAGGATGGTC	TCGATCTCCT	GACCTCGTGA
67621	TCGGCCCGCC	TCAGCCTCCC	AAAGTGCTGG	GATTACAGGA	GTGAGCCACT	GCGCCCGGCC
67681	CCGTTTTTTT	TTTTTTGGTT	TTTGCAATGC	TTCTCCCTTT	TACTGTAAAC	TATTTCCACT
67741	ACCAGCGTAG	TTATCATTTT	TACTGCTTAA	TAATTTGTTT	GGGGAAGTGA	ATGCATCAAC
67801	CCACATGAAT	TTCTTGTCTA	TTTGACAATT	TATTTCTTTT	AGGAATAGTA	TTAACTCCTA
67861	AGGTCTGGG	AGCCAGTCTC	TGTAATTGGC	TGCTCCAGGG	TCCTACTTCA	GTTTCCCAGC
67921	TTCTCAGTAC	TGTCAGTCTC	AATTGTGGGT	AATAATTATT	TTTGTCCACC	AAAAGACTCT
67981	GTATGTGAAT	GAGTTTTGAA	ATCTGCTGAG	TAATACAGTG	TCAACCCAGT	TAATGATTTG

Figure 9 (Page 21 of 74)

110/162

```

68041 CCGGGCGGCT TGATCAGGGG CTGTCCAACCT ACCGGCATTG TGATTTGGAG CGTCATCTAG
68101 TGTCTGAAAG CACAAACAAC ATCCTACATT GTAAATGCCT TTGGCTACAG AGATTGAAAC
68161 CAAAGCAAAC CTATGTTTTG AATTGTTATT CTTGAGCAGT TCTGCTAGCC TTGAAAAATC
68221 TAAAAGTTAA AAAAAAGCTT TATATTTTCAT TTTCTGCCTA AACTCTTTAA AATTGCTAGT
68281 TGACAATTAG ATATTTTCAA TTTAATGAAA TTTTTTTTTA GTTCACAGAT TAATACACAA
68341 TGGGGGAGGG TTCTTATTCT GTTGGACTTT TACATAACCT CCACTTTAGT GCAGTCTGCT
68401 TTATGGGGTC TTGTTTGAGG TGTGTGTGTG TTTAAGGGAA TGTGGTTTAC AATCAAAATA
68461 TTGGGTTGCT CTTAGGCACA TTGTAAAGTC ACACACCTGT ATTCTTATTG ATACATAATG
68521 ATTAATAACA TTATTATTAC AGCCTGATCA CCATCATTAT TGATATATCT AAATAATGAA
68581 TTTTATAATT TTGCTTCCTG TCAGGCAAGA GCCAATTTCA GTGCTACCAT GTTTGTATAG
68641 CAGTATTTAT GTCTGTCATC CTCAGTCATT TTACTTCACT TGTTCCTTAGC CAAACGGCCG
68701 AGAAGCGATG GTCATTTTAC TTCAAAAATG AAAAGAATTA ATATTTTAC GTTTCCCTTA
68761 AAGACCCATAT GTTTAACCTC CACTCCCGGG TAAAATGGTC TAGTCCCTCC TTTTCATATC
68821 ATCTCTGATA TCTTTTGCAC AGCCACTATT ACCTACCGTT TTCTAGATCC CTATTCTTCA
68881 AACACCACCA TGAAGGTAGA GCCTGTCTGA ATTATTTTCT TGTCCCGTGA ACTCAGTACA
68941 TTGTTAGGCT TCTTGAAGAT GTTGATCAGT TGTTTGTTGA GTGAATGAAT CAGCTAGCAT
69001 GATTTTTCTA GACCACTGAG ACAAGTGTCT AAGACACTTG TTCCTTCCCA TGTTCTTGCC
69061 TGCCTGTGCA ATCCATGCAG TCTCATGGCT TCCCAGTGCC TCAGAATTAT CCCCTGTCAA
69121 ACAGGCATTA TAATTTCTGT CCCTGAAAAA GGACAAAAAA CTAAGTGTAT AGCTAGAAGT
69181 TAAAAATTAC CGGCCAGGTA CTGTGGCTCA CTCTGTTTAT TCCAACATTT TGGGAGGCTG
69241 AGGCGGGCAG ATCACCTGAG GTCAGGAATT CGATACCAGG CTGGCTAACA TGGCGACCCC
69301 GTCTCTATCA AAAATGTAAA AGTTAGCCAG GTGTGGTGGC TCGCACCTGT GGCCCCAGCT
69361 ACTCAGGAGG CTGAGGCAGG AGGATCGTTT GAGCCCTGGA GGTTGAGGCT GCAGAAAAAT
69421 AGGAATATAC TCTCTTTCAA GAGTTCGTGG TTTTGACTGC CACCTAGCGT ACATCAGAAA
69481 AACCGCATGA CATAGGAAAT GCCTGTGACA GAGGGGTAAG GTGAGAGAGG TTGATGAAGA
69541 ATGTATTGAA GGAGTGAAAA CGCTTCCATC CCTCTACTTA CTAAATATAT TAGTTAAGTA
69601 GTTGGGGCAT ATTTTAATTC ATGCATTTTG TAGATAGAAA AACAAAAGTT TTATTCTGTT
69661 TGATTTAGTT GATACTTTAA TATGTGTGTG TTTAGGATGC ATGATTTATA ATCAGTCTGC
69721 AGCACTTCTT GGAGAAGTCT GAATTCATC TCTCCATTTT CTTATTGGCA ACGTGAGAAT
69781 GATTACAATG GTGGTTGTCT CATAGAATGC AGGGAGTCAG AATGAAAATA GTCCATATAA
69841 TGCCCTGGTG AGAGGAAGGG TTCAGTTAAC TGTCTGTATT AATATTACTG ATAACAGTCA
69901 TGACAAACAA AAGCTTAACA ACAACACCAC CAACAACAGT TGCAGAATTG AGCCACCAAT
69961 TTGCACACAA GATTGTAGGT AGGATGTTTT AGAAAAGTTA TTATTTAATA TATGTATATA
70021 TTTTTGTACT TAAAATATGT CAGAGGTTGT TCTAAGAACT ATTTAAATGT TAACCTCTTA
70081 ATCCTCATAA TGACCCATGA AACAGGTAGG CTTATTATTG TCTCTTTACA TGTGAGAACA
70141 CTGAGACACG AAAAGGTTTA TTAACTCACC CAAAGTCACA CAGCTGGTAA AACGGCAAAA
70201 TTGAATTTGA ACTCAGACAT TCCAGGTTCC AAGACAGTCT AATTATTCTT TTGACTAATA
70261 TACTAAGCTG CCTCTGTATT TTTCTTGAT TACTTTGTAA AAGTATGAGG AAAATATAAG
70321 TGCTTCAAGT AACCATGAAA AATATAAACA ATCTATGTAT CAACTGAAGC ATAATTACAA
70381 ATCCTTTGAT AAGCAAACAT AATAAAAAAT TGATATCAAT CAAAACCTTC ATGTAATGTA
70441 AGCAGGTTGA GATGAATTCT ATAGTAAAAA AGTGCAGAGT GCTGGAATAC CATGCTCCTA
70501 ATATATTGGC TAGGCACACC TGCCTGCTAT CAAAGGTATG CACACACCTT GGATACAGAA
70561 AGTTGGGACT GGGTAGTTAT GTGAGTGTCA TCAGAAATCT TTCCCACTTG GGAAAGAATT
70621 GTCCATCATA AGCTTGATG ATGGACAAGG AGTGAGCTCC CAGAACAGTG ATGTGGGGAT
70681 ACATCCTCAC ATCAGAGTGA GAATGAGTGT TCTAGACTGT TTACACACCT ACCACTCCTA
70741 AATGCACACA TATAATTGCT TGCACACACA CACATACACA CTCATCTCTT CTCTGGTGGT
70801 CCAGCTCTAT CTCTTATCAT TAGGCTTCTT GGGGCTAGTA CCTAGGGCCT GTATCCTTTT
70861 AGAGGCAGCT AAGGGAAGCA CACATAATTA GAAAGAATGA ACCAGCTTGT TGGATTTGGT
70921 CTCTTCGCAT CCAGCCCTCC AAGTTAAGGA GAGTACCATC TTTCTTAGGG TCACCAAAGG
70981 AAAAAAAAAA AAAAGAAAGA AACAGAAGGA TATCATACAG CAAGGATCTA ATGCAAATAT
71041 GCCTCAAATG AGAGGCTACT GTGTGCTGAT CCCAATCCCA GGAACGTGTAT GCACATTATC
71101 TAATTTAATC CTCAGTGTAT TTCTGGGAGT ATTATTCCCA TTTTACAGAG AAGGAACTTG
71161 GCAGGGTAAC CAAGCTCATG AATGGAGAAA CTGGGATTAA ATATAAAGCT TCCTTGCTCC
71221 AGAACTGCTG TCTTTCTGCT CTTCCACACT ACCAGCTCAG CTGTGCTCTC TACATGCAGG

```

Figure 9 (Page 22 of 74)

111/162

```

71281 CAGTTTTACA AGTTTCAGAT TAGCCTGGGA CTTCAGGGT TTTGAATGGG TTAGGGAATG
71341 GGGAACTTTT GGGTTTACTT TCCATTTTTT CTTCATACAT ATGTAATATA TAACATAAAT
71401 CTATGGGTATA TATGATAAAT ATATGGCTAC ATATGAACTA TATAATCACA TATATGCATT
71461 ATAAATAAAT ATTAATTTTA TAATATTTTA AAGGTTATCA AATAAATATT AATATAAATA
71521 ATTAAATAAT TAATACTCAG CTTTGTTTTC CAAAGTGATA AATGCCTATA TTTAGCAAAA
71581 TATTTTTTGG AGGCCTGATA GTTTTTTAGGA GTGTAAAGAA GTCCTGATAT CTAAATGTTT
71641 AAGAACCACT ATTTTAGGCT GTTGTCTTCT GTCTTATTTT CCCAGCTAGA CTGGTAAATA
71701 CTTGAAGGCA AACGTTTAGC CAGCACATTA ACATTTTATG TTTTATTCTT TTTGTGCTCT
71761 CAGTGGCTGT GTCTTTTCTA TCGATTTCTC AACTGTATG ATGGTTATAT TTGTCTGTAT
71821 CTGTCCCACC AGGTATAAGT TCTTGAGAGG ACACACTGCT AGGCTGATCT TAGTTTTTAT
71881 TATTTCTCCT GGTGTCTGT GCTTAACAAG TGCTCATTA GTGTGTAAAA ACACAGCACA
71941 GTAAAAAAGT AGACATTAAA AAATAATGTC AACCAATCTA TTGAAATTTG CATTTCATG
72001 TTTCTTCCAA TATAGTCATT GTGTCAGGTT ATGTACTTAT TCTGATGAAG ACTATTGCCT
72061 AATATACGTT TGCATCTTGT GCTTTATAAC TGCCTTCATA TAGACACAGA TTGAGAAGGT
72121 GTAAAAATGT GCATATCCTC ACAATTGACA AATTCCTATC CTTTGAGGGT AGGTTTGACT
72181 TTCTGAAATG CTTTGACATC ATTTGAAAGA AGCTTGAAGA ATAAGATAGC TGTTAATGAC
72241 CCAGTTTCCT ATGTCACCTA TACAATTATA ATGGCAATTT CAAAATGTTA GGTAAATATA
72301 TTTTGCAATA TATTGTTCTT TTTGTAATAC TCTCTATGTA TTTATTTATA TTTTAAATTT
72361 TTATATTTAT GTATTTATTT TTCTGGACAG AGTCTTGCTC TGTTGCCAG GTTATAGTGA
72421 AGTGTGTGTA TCATAGCTCT CTGCAACTTC AAACCTGCTG GCAAAAGTGA TCCTCCTGCC
72481 TCAGCCTCAT GAGTAGAGTA GCGGGAACCTA CAGGCGCATG CCACTGCACC CAGCTAATCA
72541 CTATTTATTA TGCTCCTACT GTGTGCTTTA GTATATTTTC TGTTGTTTTT TGCAACCCAT
72601 TTTGAGGGCG TGTTAGGGAA TACAGATGCA GTAACCTTGG TCTCAGCCCT TGAGGTGAGG
72661 AAATATTTAG CCTCAGGTTT AATCTAATTG TTGGCCATTT GCCTTCAAAG ATTGAAATAT
72721 GAGCAAAACT GTGGCTCTGG GTTATATGTT AAAAAAAGT TTATGGGGCT GAAGCCAGGC
72781 AACAGACAAG AGCCCCTACA ATCTTATTTA GGCTGAAAT ATCCTGGAGT CCCTGTATTG
72841 TTGGTCTCAA GCAGATAGCA AACTAACAC TTACTCTTTG AGGCAGGCAC TGCCAGTGGG
72901 GTGGCTGTTA TTATTAGCTT CATTAATTGG TGAGTCAGGA AAAACAGCT TTAAATCATT
72961 CAAAGTTCTG GCCTATACAG GATTTAGTAA TATTAGGTTA GCTACATCCA AAAGATGACA
73021 GAACCCTACT CTAAGGCTGG GCTTGGTGGT TCACACCTAT AATCTCAAAA CTTTGGGAGG
73081 CTGAGGCAGG AGGATCACTT GGTGCCAAGA GTTTGAGACC AGCCTGAGCA ACATAGTGAG
73141 ACCCCTGTCT CTATCAAAAA CAAAGAACTC TAATTGGCAT AGTAGAAGGA AAAAGTGAAA
73201 GAAAAACCAG CTGTCACCTT CATTCCTTAC ACCTGTCCTA ACAACTCCTC TCACTATCCT
73261 TTGAATATAT CTTGGCTGTT TGAGTCTCTC TCTAGCCCCA TTACTGCTGT TTGGACTTGA
73321 CATTTTGCTC TGCATTTTTA ACTTTTCTAC CAGGGTTTCC AGACCCTGAA GAGTGTGGCA
73381 TGAAACAAAA CTAGTCAACC TATAATATTT ATGATGTGTG TGTAAATAAA AGAATACACA
73441 ATATATTGCA TTACAATATT TTAAGTGTGT CCTCAATTTG TTTGTGGCTT TCTTGAGGAC
73501 ATCAGTTTTG GGTGGGACGA CCACATCCTT AATCTGAACT TTCCCTTGGA GGTCATTCTT
73561 TTTTTTTTGA AATAGAGTCT CGCTCTGTCA CCCAGGCTGG AGTGCAGTGG CGCAATCTCA
73621 GCTCACTGCA ACGTCCGCCT CCTGGGTTCA AGTGATTCTC CTGCCTCAGC CTTCCAAGTA
73681 GCTGGGATTA CAGATGCACG CCACCATGCC GAGCTAATTT TTGTATTTTT AGAAGAGACG
73741 GAATTTCAAC ATGTTGGTCA GGCTGGTCTT AAACCTCCTGA CCTCATGATC TGCCCACCTC
73801 AGCCTCCTAA AGTGCTGGGA TTACAGGCGT GAGCCACCCC GCCCGGCCAG AGGTCATTCT
73861 AATAGACTTT TTTTTTGTG TTGCTCACAG GCTTGTTCAA TCTTATTTCA AAATTTGAGA
73921 AATACAGTTT CCATGGAACA CCAACCAGAT ATCAGGTTGC TATGGAGTTG ATAGTCAAAA
73981 GCTTTGTATC TTCCAGTTTT TCAGAATGGC TTCTAAAGGT TCTGATTGAG AGCTCTTAGG
74041 CGAAATTGAA CAACCAAGTG TCAAAGTACA ACATTCAGGA AGTTAAAAAC ATGACTGACA
74101 TATATGTACT ATATATAGTG AGCTTGTGTA TGTGTCAATG AATGATTTAA TTCATTAATG
74161 AAGGAGGAAG CAGAATCACA ATTAGGTCAA AGGAAGATAC GGGAGAATAA AATATGTATT
74221 TGGTCAGGGA AAGGATGTAT ACTGGAAGAG GAAGGGAAAA TCAGATATAA AGTTGTTTAA
74281 TGACTTATTA GGCAATACAA TAATAACTTT TAGGGTCATT TTTTCTATAT TAAGAATTCA
74341 TTTCCATCTC TATGACAAAA TCCTTATTAA TTTATTAAAC TTCTACAAGT GAATGTTTAC
74401 TTTTAGATAG TCTGGACCCA ATAAATGTA AACATTAAGT CAGAGTTACT TTCACGTAGG
74461 ACAGTGTGT CCAATAAGGT ACCACTAGCT ACACGTGATC ATTGACCATT TGGACTATAG

```

Figure 9 (Page 23 of 74)

112/162

```

74521 CTAGACTGAT TTAAAATGTT CTAAAAGTGT AAAATACACA CCAGGTTCTG AAGATTTATC
74581 ATTTAAAAAA GAATGTCAAC TGTCTTTTTT TTTAGCTTAT TTATTATATG TTGAAGTGAT
74641 AATAGTTTAG ATATATTAAG TTAAATAAAA TATCTTAAAA TTAATTTTAC TTGTTTCTTT
74701 TCATTCTTTC AATGTGACCA CTAGAAATCT GGAAAGTATT TATGTGATTG ACATTCTATT
74761 TTACTGTCTA GTATTGCCTT ACATCATCAG GTACCCCATG AGTAGGCTTT TTAGATAATT
74821 CTCTAATATA GCTTGGAAGG ATATGGAGAA ATATTTTTGC GTTGCTTTTA AGTTTTGCAT
74881 AACTTTTTCA ACACACTTTA TAAAGGATCT AGAAAAGGGT TGGTTACATG TTTCTCTGTC
74941 TTCTGGCCTC CACCATGTTG CCAGGAGGTT GGGGACAAGA TTCTGGGTGG CTGGATGTCC
75001 TAATGGCTTG AGGTCTGGAC TTGAGATTTG CATATAAAGA GATGTGATTA GATTGAGTCG
75061 ACTAGAAAAA TCATATTAGA GAACTGAATC ACAGCGATTA AATTTACATG TCGATTTATA
75121 AACCAGGACA CCAATTTATA GTGAAAGAAG GTCCAGTTAC CTGGTAATCA AGACGTTTCA
75181 TAGCTATTTT CATGATGGAT ATACTTAGCT GAGTTTTAAA TGAGAAGGGG GTTCATTGCA
75241 CATAGAATAA GATCTAAGTG AAATGTTTAT TTATTTTTTT TTTTTTTTGA CATGGAGTCT
75301 TGCTCTGTTG CCCAGGCTGG AGTGCAATGA GGCAATCTCG GCTTCTGGAG TGCAATGAGG
75361 CAATCTCGGC TTCTGGAGTG CAACGAGGCA ATCTCGGCTC ACTGCAACCT CCACCTCCCG
75421 GGTTCAAATG ATTCTCCTGC CTCAGTTTCC TGAGTAGCTG GGATTAGAGT TGCCTGCCAC
75481 CACGCCAGGC TAATTTTTGT ATTTTTTTTA GTAGAGATGG GGTTTCACCA TGCTGGCCAG
75541 GCTGGTCTCG AACTCCTGAC CTCAGGCGAT CTGCCCCTC CAGCCTCCCA AAGTGCTAGG
75601 ATTACAGGCG TGAGCCACCA AGCCTGGCCT AAGTGACATG TTCTTATATT GTTCTTTCT
75661 TTCTTTTTTT TTCGACTGAG TCTCACCTCG TTGCACAGGC TGGAGTGCAG TGGCGTCATT
75721 TCGGCTCATT GCAACCTCTG CTTCCCGGGT TCAAGCGATT CCCTTGCCCTC AGCCTCCTGA
75781 GTGCCACCAC CCCAGCTAA TTTTGTACT TTTAGTAGAG ATGGTGTTC ACCATGTCCG
75841 CTAGGCTGAT CTCAAACCTCC TGGCCTCAGG TGATCCGCCC CCGAGTCTCC CAAAGTGCTA
75901 GGATTACAGG CGTGGGCCAC GGGGCCCAGC CTTATATTAT TTCTTTTACT ACAATATATT
75961 AGTATGATGC AGGTGCTTCA ATTGTTTATA CACTTTCCAT AATTTTGTAT AATTCTTATA
76021 CCCTGTCACT CTGAGGAATA GCCGTCTAA GTGTTTTTCC ACCACTGCTA ATTCATCCAT
76081 CACTAATCTC ATTAGACTGT TAATCCCAG AGGACATAAG CACACAAGCA GACAATGTTT
76141 ACAAATGTTG GACAAATGTT ATTTAATAAA ACAATGGGGT CACCCTTAGT CTAAAAGATG
76201 TTTCACTTTT CATTTGTCAT TGAACCTTA TTTGTAGGTT CCCTTTTGAC TTTCCACAA
76261 TCTAAGGCTG TTCTCTTTAA CACATATTTT CATGAAAACA TATATTTGAG CAGAAATTGT
76321 TGGGGAGTTG TAATATTACC TTTGTCCCTA AATATGAATC TATAATTATA TCAAATATAT
76381 GGGCAGACAA TTTACTTTGC CTTAATCTC AAGAAAAAAA TAGCAATTAC TTGGGGTCGG
76441 AGAGTAAAT AAGAAGTAGT GAACCTTAAA GTAGCAAAC TTAGAACAGA ATAGTTTCAG
76501 AGGGGATGAG AAGAGGTGAT TTTTCAGCTC ATCAACAACA GATCTTATAA TAAATTACAT
76561 GTTCTGGTAC TTTTCTTGTC TTTCTGTGTT AAATTTTGCT ATTTAAAAAA ATAAATTTC
76621 AATACATTGT TCATCTTAAA AGTCAAGAGT GTGTTTTATT AAAGTCAGTT GCTTTATTG
76681 CAACTCAAAA GATATATTTG AGTTCCCAAC TGGAGATTGT CCTATATGGT AACTGCGTA
76741 AGGTATGGTT ACTGAAAGTA ACCTACAATT TTCATGGGCT GAAATTCATT TCTATATTGC
76801 AGCGTACAAA AATAAATAAA TAAAAAATGC TTGTTTTCTT TGAAAACATA TTATCTCAGT
76861 GCCTCTAACT GCCAAATCTA TTGGCTTTTT TGCAGGCTTA AGGGCTCTCC CTGTTCCTT
76921 TATGATCTCT ATCTTGAGGG CCAGACCTCC TGCCTTACAC AACTCAGAGG GGGACCTCAG
76981 AGCTCTTTAA AAAGAGCCCA ATTTCTCGCC TGTAAGAGAAG TGAAAAGGAT GCCCCACCCC
77041 CATCTATGAA AAGAGGGATT TGATAGTTTC AATGTCTTCA AATCAAAGAT TTAAGTCTGT
77101 AGCCCCCAC CACCCCGGAC CCTAGCAAGG CTCATGAACC CCCTCCCATC CCGCCCTAAT
77161 TGCTTTGGAC TGGCCGTGGA ATCCTTGTC CAGTCCACAG TTCCTGTGCG ACTGCACGAA
77221 GAATTCACAG AGGACCTGTG TTACTTCCCT TGTGAAGAAA CAGAATTATC ATGAAAATTT
77281 AGGTGGAAAC CATTTGCTT TTTTCTTCAA AAATAAGGGA AGCATGTGCC CAACCACCCC
77341 TGGGAAAAAG AACCTTCAGG GGCAAAGGAG CGAACAGGTA ATTTATAAGA AAAACAGAAA
77401 GTGGTCTCTG ACTGCCCCAG ACTTCCTTCG GAGTTGGGGG AATTGGGGAC GCCTGGACGC
77461 GTTGTTTTTG CGTTTGTGGA AAAAATAAAT GAAGAGCATG AAGCCCGAGG CTTCTGAGAT
77521 CCTTTCCTGA CCAAACCAA GTGATTTGGT GCGGGGAATT TTAATATTTT TCCCCTTTTG
77581 TGAGGTGGAA CAAACACAAC TTGGGAGCAG CGCAGCGGCT CAGAGCCTGC CAGCCAGGCG
77641 GGCGACCAGA GCACCAATCA GAGCGCGCCT GCGCTCTATA TATACAGCGG CCCTGCCCAG
77701 ACGCTGCTTC ATCGGCGCTT TGCCACTTGT ACCCGAGTTT TTGATTCTCA ACATGTCCGA

```

Figure 9 (Page 24 of 74)

113/162

```

77761 GACTGCTCCT GCCGCTCCCG CTGCCGCGCC TCCTGCGGAG AAGGCCCTTG TAAAGAAGAA
77821 GGCGGCCAAA AAGGCTGGGG GTACGCCTCG TAAGGCGTCC GGTCCCCCGG TGTCAGAGCT
77881 CATCACCAAG GCTGTGGCCG CCTCTAAAGA GCGTAGCGGA GTTCTCTGG CTGCTCTGAA
77941 AAAAGCGTTG GCTGCCGCCG GCTATGATGT GGAGAAAAAC AACAGCCGTA TCAAACTTGG
78001 TCTCAAGAGC CTGGTGAGCA AGGGCACTCT GGTGCAAACG AAAGGCACCG GTGCTTCTGG
78061 CTCCTTTAAA CTCAACAAGA AGGCAGCCTC CGGGGAAGCC AAGCCCAAGG TTA AAAAAGGC
78121 GGGCGGAACC AAACCTAAGA AGCCAGTTGG GGCAGCCAAG AAGCCCAAGA AGGCGGCTGG
78181 CGGCGCAACT CCGAAGAAGA GCGCTAAGAA AACACCGAAG AAAGCGAAGA AGCCGGCCGC
78241 GGCCACTGTA ACCAAGAAAG TGGCTAAGAG CCCAAGAAG GCCAAGGTTG CGAAGCCCAA
78301 GAAAGCTGCC AAAAGTGCTG CTAAGGCTGT GAAGCCGAAG GCCGCTAAGC CCAAGGTTGT
78361 CAAGCCTAAG AAGGCGGCGC CCAAGAAGAA ATAGGCGAAC GCCTACTTCT AAAACCCAAA
78421 AGGCTCTTTT CAGAGCCACC ACTGATCTCA ATAAAAGAGC TGGATAATTT CTTTACTATC
78481 TGCCTTTTCT TGTTCTGCCC TGTTACTTAA GGTTAGTCGT ATGGGAGTTA CTGAGGTATC
78541 AGAGAGTAAT TGGGTGACGG GGTGGAGAG TGGCCGTGGT GAGGTTACAG CATTTAAACC
78601 TTTATTGCGG CTTCTAGGTC CCTGACCGGA GGCTTTTCTC GCTGGCGGAT GGTTTTGGGA
78661 TGGCAGTCCC GCCCCAGGCC TGTGAACGGC AGAAAAGACC GCAAAACAAG AGCCAGTTTC
78721 TTAGTCTAAA GGGATGTCCG GATTGGACTA AAAAATTTTC AAAAGTCCCG CCCTGCTCCC
78781 GGGTTGGTCC GTTCTTCTAG TACATGACTT TCATTCTGTA TTTAATTGGA TGGTGGAAGA
78841 CGTTGCTTAT TCTGTGTTTT TTGCTTTACT GTGACTTAAA AGTTTTGCCT CTTTTCTCTT
78901 TATATTAATG TCTGGGATTT CGGACGCTTT CCATGTTGTT GGTAGTCAAG TTGATGTCTC
78961 CTGGAGGTAG TGGCAACATC CAGCCCTGGG AGGAGAGTGC GTGCAGGTAC GTTGTCCTA
79021 CATTCTCTG CTGTTAATTT CTCATTCTG TGGCAACGAA GGAATGCATT TAAAAACAG
79081 CCACAACAGC GGCAATAGCC CTTCTCCAC CCAAGGCAAT CGTGGACCTA GGGAGTTTTT
79141 TGTGCCACAT AACATGTAGC CTTCCGCTAA ACTGACAGGT TTGAGCGTAT CGATTTTGAG
79201 CGTATCGAAA GCACAACCTT TAGCCAGCCA TTTTGTCTC GCATGACTAC GGTGCTTAT
79261 CCTGTTTAGA CAGACAGCAA CATTTA AAAA TCGAAGTTCC TTTAAACGTA TTTTGTGTTG
79321 CAGTCCAAAT GTTTCTATGC AGAAAACAGT ATTTGTACTA TTAACATGA AGAGTGATG
79381 GATAAATGGG AGACATTTCT AATAAAGGCC TTCGTTAATG GTTCCCTCTG TTTGACATCC
79441 ATGGTGCTTC TGAATACAGA AAGCCTAGCG TCTTATATTC GCTTCTTTTA AAATCTGGTG
79501 GGCACATTTT GGTGAGACCT AAATTATGGG GACTGGGGCT TCTGGAGATA AGCTGCTCAA
79561 TTATTCTACC ATCTCCACAA TGATTAATAT AGTGAGTTGA TTTGTTAGTG ATAGTGACCA
79621 CGGATTCATC CCAAGAAAGA GAAAGGGGAG GGAGGCAAGC AGAGAGACAG GAAGACAGAG
79681 GCAGGGAAGA AGGAGAAAAC ATTCTCCCAT GGTTTAAGTA ATTTTGTGTT GTTAATTTTA
79741 CATTACAACA CGGTTTAACA TGGTGAACCC TCTATTTTGG TGTAAGGTTT AACATATGGA
79801 CATATTTTTC CCAAGACCAT TTATGAACTT TCATTTCTGC TTCCCCCTTC TTCCTCCCGT
79861 GCCACCCTCC ACGCTCCTAT CAATTTTGGC TGTTTTGTCA TAGGCTAATA CGCTATAATT
79921 TCATGGACAG TTGGACTGTC TTAGGTTTCT CAGGTTTCTA TTTTGTTCCT TTAGTCATTC
79981 CCACAATTCT TAAGGTAGAA TTGTATTGTT TTAAACATTG TGTTGTGTGC TATCCTCAAT
80041 GCTGAGATGA TTATGTGACA AATGGCAAGT GTTCAACTAA TACCTAAATC TGTAGTATCT
80101 TATCAAGCCT AATGCTACTT CACAATGCCT ACTCCATTCA CCGCACTTTA TCTCATTACT
80161 GGCATTCTGT CATCTCACAT CATCAACAAGT AAAACGGTAA GCTATTTTGA GAGAGATCAC
80221 AGTCATATAA TTATATTTAT ATTTATTTAT TTATTTATGA GACGGAGTTT CCCTCTGTCA
80281 CCCAGGCTGG AGTGCTGTGG CACGTTCTCG GCTCACTGCA ACCTCCGCCT CACGGGTTCA
80341 AGCGATTCTC CTGCCTCCGC CTCCCAGATA GCTGAGATTA CAGGGGCCTG CCACCATGCC
80401 CGGCTAATTT TTGTATTTTT AGTAGAGACG GGGTTTCACT AAGTTGGCCA GGCTGGTCTC
80461 GAACTCCTGA CCTCAGGTTA TCCGCCCACC TCATCCTGCC AAAGTGCTTA GATTACAGGC
80521 GTGAACCACC GTTCACAGAC TCAAATCATT TTTATTACAG TATATTGTTA TAATTGTTGT
80581 TTTATTATCA GTTATTGCTA ATCTCTTACA GTGCCTGATT TATAAATTAA ATTCACTATT
80641 GCCATGTGTA TATAGAAAAA AACAGTGTAT ATACGGTTCA GTACTATCTG TGGTTTCAGG
80701 CATCCACTGG GGGTGCAGTT TATTAAACAT GCATTTACAT TAGTCTCCCC TTTGGGAGAC
80761 TAATTAACCTG AGATGTTGTA ACGTGACTTT AATAGCAGAT AGAGCTAATT TTCTCTCATT
80821 ACTCTTCTTT TTCAGAATTT TCCTGGTTAT TCCATTTTTT ATTTTCCAT ATGTATATTA
80881 AGATCTCTTC CACCTCCTCC TGTTTCTCCA TCTCAACATC AAACAATTAA AAAAAAAAAA
80941 AAAGGCTGGG CGCGGTGGCT CACGCCTATA ATCCAGCTC TTTGGGAGGC CTAGGCGGGT

```

Figure 9 (Page 25 of 74)

114/162

81001	GGATCACGAG	GTCAGGAGTT	CAAGACCAGC	CTCGCCAAGA	TGGTGAAATC	CCGTCTCTAC
81061	TAAAAGTATA	AAAATTAGCC	AACCATGGTG	GCAGGCGCCT	GTAATCCCGG	CTACTCGGGA
81121	GGCTGAGGCA	GAGAATTGCT	TGAACCCGGG	AGGCGGAGGT	TGCAGTGAGG	CGAGACCTTG
81181	CACTCCAGCC	TGGGTGACAC	AGCGAGACTC	CGTCATAAAA	AAAAAAGCCG	GAAGCAGTGG
81241	CTCACGCCTG	TAATTCCAGC	ACTTTGGGAG	GCTGAGTCAG	GCAGATTACC	TGAGGTCAGG
81301	AGTTCAGGAC	CAGCCTGGCC	ATGAAAATAC	AGCCTGGCCA	TGAAAACACA	CAATAAATTA
81361	GCTGGGCGTG	GTGTCACACA	CCTGTAATCC	TAGCTACTCG	GGAGGCTGAG	ACAGGAGAAT
81421	CACTTGAACC	CAGGAGGCAG	AGGTTGCAGT	GAGTTAAGAT	GACGCCACTG	CACTCCATCT
81481	GGGCGACAGA	GCCAGACTCT	CTCTCAAAAA	ACTAAATAAA	TAAAAATAAA	GTTATGGTAC
81541	ATTGAACTTC	TGTGTTCCCT	TCTCCCTTAG	ATACTTTCAT	GGCTACCCAT	TTAATTGATG
81601	TTCTTATCAT	CTCCAAGAGT	TAGTCAGGAG	AGGAATCAAC	CCAAGCAAAA	ATAGCTGATT
81661	TTCTAATTTT	CCTTCAATGC	CCTTTGGGGT	CTTAATCCAT	TTGATTTATG	TACTTTCAAT
81721	TAATCCTAAC	CTCGAATGTC	TTCTGCAAAC	ATGTTTCCAC	AGATGAAACT	CGTCAAATGA
81781	AACACATTCC	TTTAATTTAT	AGAGTTAAAA	ATTAGAAAAA	TTTTCAATTC	TATTTGGCCT
81841	TTAGATTTCAG	TCTTGCATAT	GTTTTCTCAA	TTTTGTTCAT	GCTCTTTAGT	TTTGTTTTAT
81901	TCCATCACAA	TTGTTACAT	AGCTTACTGG	CTTAGGTCTA	ATGAACCATT	CATTTGGAAA
81961	TTAAAAATTGG	CCATTTTAAG	ATGAAAAAGA	TTCTTGCCCTC	AATTTTACTT	AGTTTTTGAA
82021	ACTGTCAATG	AGGACACATG	TTTTTCTGTA	CTCTTAGATT	CACTAAGTAG	TGTCTTGCAA
82081	ATTTAACTGA	CAAAGGACAG	ATTAACATGC	GAAAAAATAA	GCATGCAATT	TTATTAGTAT
82141	ATTACATGCA	CAGAGTTCCC	AAAGAAAAAA	AAATTGAAAC	CTTAAAAACG	CGGTTAGACT
82201	CACAGACTTA	TACACCATTTC	CAACAAAGGA	AAGGGAGTTT	GCACCTTCATG	GGATGACGAA
82261	TTTGGGAATG	TGACAAGGAA	ATAAATACAT	GGGCAATAAA	AACCATGGAA	GATAAAATGA
82321	AAGATAGAAA	TAATTGTAGT	AAGGTTTGT	TTTGCAGAGT	CATCTCAGTG	CCAACCTTCC
82381	ATATCTAGTG	ATAAGAATTG	CTCTCTTTTT	CCTGGTATAG	CAGTTGGGGA	CACTTTTACA
82441	AGGGAAATTT	CTGTCACCTT	CACAAAGGGA	AATTTGGGTA	AAGAGAAGAC	AGAGACCTCT
82501	TCCTACACCT	GTTGATTTTC	AATTGCCTTC	AGCTGAAAAT	AACTTTTATG	CCAAAGTAGA
82561	ATAATTTGGG	GGTGACATCC	TGATATTCTT	CAAACTTAT	ATTTAATTTT	ACATTAGTAA
82621	TTATATCATT	TTTGATTTTT	AAATTAGTTT	TATAAAATAA	TTTTGAAAAA	CGGTAATAAT
82681	ATTCAAATAA	TTCCAGAAAC	ACTGCTGATA	AGCCAAAAAC	ATCAATGAAT	ATTGCATAAA
82741	CAACTGATAA	TTCAACCATG	AAAATTTATG	ACATTGTTCT	TGTGTGATAA	AACTATGAGT
82801	AACATAAAAA	CTAGAGGCTA	CTTGTAATGC	ATTATTCCAA	ACTTTCTGTT	TTTTATTTAT
82861	TTATTTATTT	ATTTTGAGAC	ATAGTCTCTC	TCTGTCACCC	AGGTTGGAGT	GCAATGGCGT
82921	GATCTTGGTT	CACTGCAGCC	TCCACTTCCC	CGGTTCAAGC	AATTTCTCTG	CCTCAGCCTC
82981	CTGAGTAACT	GGGATTACAG	GCACCTGACA	CCAAACCCCG	CTAATTTTTT	TGTATTTTTA
83041	GTAGAGACGG	GGTTTCGCCA	TGTTTGCCAG	GCTAGTCTCG	AACCTCTGAC	CTCAGTGATC
83101	CACCTACCTC	GGCCTCCCAA	AGTGCTAGGA	TTACAGGCGT	GAGCCACCAT	GCCCGGCGCA
83161	TTATTCCAAA	CTTTCATACA	CAGTGCTATC	ATGGCTACAA	ATTGAAGTAT	CATATTATAC
83221	ACTCCTAGGC	AAAGCTCTGG	ATATTTTGGC	TATATAAGCC	TGAGGGAAAT	GTAGTAAGGA
83281	CATTGTGGTT	GAAATTCATA	CCAGAGATGA	ACAGGCCCCG	TGCAAGACAG	AATTACATCA
83341	CTAAAGGATA	TCAGAAGAGA	ATAGGGATTT	AGGGTACAGT	GGCAACAACA	GTTTTGGGAA
83401	CTAGCATTTT	TTGAGCACTT	ATTTACAATA	TGCCAAGCAC	TGTTGCTGAT	TACTCTATAT
83461	TTATTTTCAA	ACACATTCTT	GTCACAGCAC	TTTGAAGTAA	GTGCCATTGT	CATTCCCCT
83521	TCAGGGTGAA	GGACTAAAGC	TTGGTGTCTT	TAAGGATGTA	GCTAGTTAGC	TGTGTGTGTG
83581	TGTGTGTGTG	TGTGTGCATT	TTTTTTTAAA	TTTAAAGTCA	ATAAATTTTT	ATTTGAAGAA
83641	TTTCACATCA	AGGTAAACTT	TGTTCCCTCTA	AAGAGCTGGA	GTCAAAATGT	ATCTTCAAAA
83701	GATTCATCTT	CAAGTTAGCC	CTTCTTAATA	GAAGTATGTC	TTAATCCACA	GTTGTCAGCC
83761	CACAGTTCTT	TTATTTTGAC	TTTTTTTTTT	TTTTTTTTTT	AGACGGAGTC	TCTCACTGTC
83821	ACCCAGGCTG	CTGGGCAGTG	GCGTGATCTC	GGCTCGCTGC	AACCTCTGCC	TCCCGGGTTC
83881	AAGTGATTCT	CCTGCCCTCAG	CCTCCTTAGT	AGCTGGGACC	ACAGGCGCAT	GCCATCGTGC
83941	TCGGCTAATT	TTTGATTTTT	TATTAGAGAC	AGGGTTTCAC	TATGTTGGCC	AGGCTGATCT
84001	CAAACCTCTG	ACCTCATGAT	CCGCTGCGCT	TGGCCTCTCA	AAGTGCTGGG	ATTACAGGTG
84061	TGAGCCACTG	CACCCGGCCT	TATTTTGCCCT	TCTTTAATCT	CCATTTGAAC	ATGGACATAC
84121	TGATGAAAAC	TACAACATTC	TTCAACAAAA	ATCTTTGGGA	TTTAATTTCT	TCAACCACTT
84181	TACTTTGGGG	TCATTTTAAG	ATTAGGTGTA	TCTGCCCTGGT	TCTCAATTTG	ACACCCCTTC

Figure 9 (Page 26 of 74)

115/162

84241	TCTCTAAACA	TGAATGAGTT	CCAATCATAT	TTATTCCTAA	GCTATCACAC	TCAAATATAC
84301	TACAGATCTG	TGGAATATGC	CAAAAGTTAA	GGTGAAAAAT	TAAATTATTA	GGTATTTTCAT
84361	AGTTTTGCTA	GTTTTTGATC	TGTGAGTGAA	TATAACTATC	CTCTATGTCC	TGGCACTGTT
84421	CCTCAGAAAC	ATAGGGTCCA	CATATGTAAT	TTTAAATTTT	TTAATAGGCA	CATTTTAAAA
84481	AGTGGA AAAA	GAAATCTATT	TTAATGATTT	GAATCCAGTG	TAACCAAAAA	TTGTTTCAAC
84541	AAGGTATCTA	ATATTAAAAT	ATTGAGTTTT	TACTTTGTTA	TTTTACTAGG	TCTTTGAAAT
84601	CTGGTGTGTA	TTTTACACTT	AAAGCACATC	ACAGTTTGGA	GTAGCCACAT	TTCCAATGCT
84661	TAATACTCAC	ATATGGTTAG	TGGCAACTAT	CTTGGACAGG	ACAGCTTTTA	TACTCTGGGA
84721	AGACACAAGC	AAATACTTGC	TCTGCAGCAG	AATCCAGATG	TTTTCCAAGA	AAACACTTTT
84781	TCTGACCTGT	TCGTGAAACC	CAGGTAGTGT	CTCTAATACT	TTATATTTTA	TTGGTTTGTC
84841	CTATTGTAAC	CACCCAACGG	GCTCTCCTTG	TCCACTTCCT	AGACAGAGCT	GATTTATCAA
84901	GACAGGGGAA	TTGCAATAAG	GAGCCAGCGC	TACAGGAGAC	TAGAGTTTTA	TTATTACTCA
84961	AATCAGTCTC	CTTGAGAATT	TGGGGACCAA	AGTTTTTAAG	GATAATTTGA	TTGTAGGGGA
85021	CCAGTGAGTC	GGGAGTGCTG	CTTGGTTGGG	TCAGAGATGA	AATTATAGGG	AGCCTAAGCT
85081	GTCCTCTTGT	GCTAAATCAG	TTCCCTGGGAG	TGGTGGGGTG	GGGGACTCAA	GACCAGATAA
85141	TCCAGTTTAT	CTATATGGGT	GGTGCCAGCT	AATCCATTGT	GTTCAGGGTC	TGCAAAATAG
85201	CTCAAGCATT	GATCTTAGGT	TTTAAAATAG	TGATTTTATC	CCCAGGAGCA	ATTTGAGGTT
85261	TAGAATCTTG	TAGCTTCCAG	CTGCATGACT	CCTAAACCAT	AATTTATAAT	CTTGTGGCTA
85321	ATTTGTTAGT	CCTGCAAAAG	CAGTCTGGTC	CCCAGGCAGG	AAAGGGGTTT	GTTTCTGAAA
85381	GGGCTGTTAT	TGTTTTTGT	TAAAAGCAAA	AGTATAAACT	AAGCTCCTCC	CAAAAGTTAGT
85441	TAATCCCAAA	CTCAGGAATG	AAAAGGACAG	CTTGGAGGTT	AGACGTTAGA	TGGAGTCGGT
85501	TAGGTAAGAT	CTCTTTCAC	GTAATAATTT	TCTCAGTTAT	GATTTTTGCA	AAGGCAGTTT
85561	CACTGTCCAC	TTCACCTCAC	ATCAGGCCCTC	TGACTAGAGG	ATTCCAACAA	TACTTAGGCC
85621	AGGACACCAC	CATGTCTCCT	TATCCACCCT	GAGGGATTCC	AATTTCTGAA	ACAAAGGAAA
85681	CTATATATGA	TAGTATGAAA	CTATATATGA	GAAGGAAAT	ATATATGATA	ATCAATTTTA
85741	GGGTTATCTT	ATTGATTAGA	AGATATTAAA	GTGTGACACT	GCCTGGCAAT	GATATCTGCT
85801	GGTAGTAAGA	ATTTGGCGAA	TTTAGTGAAA	TTCCCTGAGGC	TGAACCTCCA	CTTCTGTAAA
85861	ATGGAGACAG	TGAGATAATT	TGCCTTACAA	TGCTGAAGTA	AGAATTTTAC	ACAATAATTC
85921	AGACCAACCA	CTTCATGTGG	TACTTGGCCC	GTGGAAGACT	ATCAATGACA	GTTAGTTTAT
85981	AGTTTATACT	ATTAATGAAT	CCTTTGTTTC	ATTGTTATTT	CCTTCTACAC	GTTGGCCTCT
86041	CTAAAAGAAG	GTAATATTCA	ATACAAATAA	AGTTAAAACA	GCTTGCAGAG	TTGTCCCAGG
86101	GAACCTCACTT	AACCACTGAA	GTGTTCAAAT	TGCTTAAGGT	TGACTTTATA	TTCTCCTGAC
86161	TAACCTTTCT	CCTTCTGGTA	TTTCTTCTGA	GAACAGCACC	ACCATCCAAA	GCATCATGCA
86221	AACAGTGGTC	ATCCCAGACC	AGTAATTCTC	AACTCACAGG	GTGCTCCTGC	AGAGATGTAT
86281	TTGAATAGAG	TGGTAGGATG	CTGAAGAAGG	CCACGTAAAA	TTTGGCCAGT	GATCTGGGGC
86341	AGATTTATCC	TGAAGCTAAT	GAAACACAAG	TGTAAGGGCC	TGTACTTCCA	AGGTGCAGAG
86401	AGGGGCCCTA	CAAATGTGTT	AGTTTGTCTC	TCTCTCTCTC	TCTGATTTTA	AAATTTGCAG
86461	TATTAAGGTA	CTTTAATCAC	GGATGGTTCA	GGCTGCTATT	TTCACTCAAT	CCTCCTTTTT
86521	ATTAAAATCA	CCATTGTCTG	ATTATGTTAG	AATCCTGATG	AAAATATTTG	GAATTTGAGT
86581	AAGAGAAAGT	TTAGTTGAAG	ATGTATCTAG	TATGGGGATA	ATAAGTTACG	TGATTTGCAT
86641	ATGTGATCAT	GTGTACTTCA	TTCGTTGCCA	GCCAATCTGA	CGTAAGAATG	GCTTCAAGGA
86701	GGCCGGGCGC	GGTGGCTCAC	GCCTGTAATC	CTAGCACTTT	GGGAGGCCGA	GACGGGCGGA
86761	TCACGAGGTC	AGGAGATCGA	GACCATCTTG	GCTAACACGG	TGAAACCCCG	TTTCTACTAA
86821	AAATACAAAA	AATTAGCCGG	GCGTGTTGGC	GGGCGCCTGT	AGTCCCAGCT	ACTTGGGAGG
86881	CTGAGGCAGG	AGAATGGCAT	GAACCTGGGA	GGCGGAGCTT	GCAGTGAGCC	GAGATCGCGC
86941	CACTGCACCTC	CAACCTGGGA	GACACAGCGA	GACTCCGTCT	CAAAAAAAAAA	AAAAAAAAAGAA
87001	TGGCTTCAAG	GAATGTTCCCT	ACTGCTCACT	GGAATAACTC	ACCTAAATTC	CTGGCAAGAT
87061	GCAGGTCCTAG	ATAAAATGTT	ATGACATCTA	AGTATTCAAA	ACACATTCCC	AGCACTGAGA
87121	GTGAGTGTCT	AGTGGAGAGT	AGAAACGTAT	AGAGCCAGAA	GCTAGTCTGG	AAAGAATTCT
87181	TACAAAGTTT	ACAACTTACA	TGTGAAAGGA	GCTTAACAGA	GGATTTTCCA	AATTTGAAAA
87241	CAATCCTAAA	AACTTACTTG	ACATTACCAA	TAATGTGTTT	TGAAACTGAA	ATACTTCTAA
87301	GTTATGAAGA	AAACATATTA	TCATCAGCCA	CCCTGGAGGA	AAGATTGAAT	TCTATTTCCA
87361	TTACCTATAG	ACAACATTAC	AAAATAATTT	CGATCTGAAG	ATGGAATCAG	AGTATTCAGT
87421	CAAACTACA	GGAAAATATA	CTTGGTAGTG	TCATATTCAG	AAGTTAATAA	AATATGCTAT

Figure 9 (Page 27 of 74)

116/162

```

87481 TTTCTGAATT TTGTGATGGC TGTTGTTTTG TCAGCTTTTA TAAAATTGGA ATTTGATTTT
87541 ATTTTCCCAT TATAAATTTA TATTTACAGT CTGCAGTACT TTTGCATTTT TAATTTTACA
87601 TTATAGCTTT TAATAGTTAA CAAGTTGTAA AAGGTTTGAT CCCCAGAAAA CCTTGATCTA
87661 CCCCCTCAGT TAAGTATACT AATATATTTA GAAAATGGAT GAAATCAGCA TTTGAATATT
87721 TTTAAATATT TATTA AAAAGA GGACATGGGT AAAAGAGCTT TGCAGTTGCC ACCCTTCATT
87781 CTC AAATTC CTGGATAAGG ATGACCGCAT AATCTTTGGA TGGTCATACG CAAGTCTTGT
87841 GTATTTGTTA CATAAATCTA TTTAGTGGAC TTTTGGCAGT GTGTACTGAG GCCAGTTTCT
87901 TCCACCTGAG CTCTGACTCC ACCTCCAGCA GCCCAAACC AATACTGAAT TTTGGGGTCA
87961 GCTATTGTTT TTGTGGACTT AGGTAACTAC ACACACATTG TCTTTATGAT AGCTTTAATA
88021 AACTGCCAT CAGAACTAAA ATGTGCACGT GGATTAAAAG GAGTGACGGT GGTGTCCCCA
88081 GGAGCCTTTC AATATGTAAG TATTTACACA TATACATGCT AAAAGAGCCC CTAGGAATTT
88141 TTTTAAACAAG GGCAAAACAG TAACTCAGCT TGTTTCTCG CAGTAAAACC GGTGAAAAG
88201 GCCTGATAGA CTTGTCTGCA GTTACAAAAC TTGTGTGTAG TTATCACCTT TATATCTCCT
88261 GGAAACTAAC ATAGACAACC GAATGGGTAA CAACTGTTT TAAGTGAAT TGTGAGTGGC
88321 TCTGAAAAGA GCCTTTTCAA TGAGGAAGAA ACGGGCAGAC TTATGCCCTT TCCCCACGGA
88381 TGCGACGTGC CAGCTGGATA TCTTTGGGCA TGATGGTGAC GCGTTTAGCG TGAATAGCGC
88441 ACAGATTGGT GTCTTCGAAG AGTCCCACCA GGTAGGCCTC GCAAGCCTCC TGCAGCGCCA
88501 TCACCGCAGA GCTCTGGAAA CGCAGGTCCG TTTGAAAGTC CTGGGCGATT TCTCGACCA
88561 GGCGCTGGAA CGGCAGCTTC CGGATCAGCA GCTCGGTGGA CTTCTGGTAG CGACGGATTT
88621 CGCGCAAGGC CACGGTGCCC GGGCGGTAGC GATGAGGTTT CTTACGCCA CCGGTGGCCG
88681 GAGCGCTCTT ACGGGCTGCT TTAGTAGCAA GCTGCTTGCG CGGAGCTTTG CCGCCGGTAG
88741 ACTTGCGAGC TGTTTGCTTC GTACGAGCCA TTTGCAATGA GAGCACACAC AAAAGTGTAG
88801 TGAAGTGAAG GCAAGTGGCC TTTAAATATA GTGAGAAAACA TTCTGATTGG TCCTGTAATA
88861 TTTCAAAAGT CCCGCGCGAT AAAATCATTG GCTGAAGAGT GACCAGACTG ATTGGTTCAT
88921 TACTAGACAA TCTTATTGGA TGAGTTGCC CACCGCCCAT CCTGTCCCTT TCGTTTCAGT
88981 TATCTGCAGC GACAAATTGT CTA AAATCT AGTTCATCCA GTCCCAAAGA ACAGAGTGTA
89041 TAACAAGGTA TCTAAGGATT TTTAAATGT AAATTCCGAT TCAGTAAAGT TGAGTGGGAC
89101 TTGAAATTCT GCATTCCTGA CAGTCTCGCA AGTTATCAAT GCTGGTGAAC ACTCACTAAA
89161 CCACCAGAAA CGTTCAGACT CATGTCGGGA AATAACGCTT ATATTCAGAG AATGAGATTC
89221 CATGCTATTT TGTTACTGGC GAACAGCAAG TTTCTTGCC CTTTGTTTTC TAAGTCCAAG
89281 TCACATTCCC ACCCTGCCTG TTCTCAAAAT GTCTTATTTT GGTGCGCTT AAGTTTCACT
89341 TTGTATACTC TAAAATGTAC TTTCTAAAGG AAGGTGTTAT TTTCTCGAAA CTTAACTTTT
89401 TAACACCATT AGGCTAGGGG GCGGTGGCT CACGCCTGTA ATCCCAGCAT TTTGGGAGGG
89461 CGAGATGGGA CGATCACTAG AGGCCAGGAG TTCAAGACAA CCCTGGCTAA AATGGTGAAA
89521 CCCCCTCTCG CATAAAAATA CAAAACCTAG CTGGGCGCGG TAGCAGACGC CTGTAATCCC
89581 AAGTACACAG GAGGCTGTGG CATGAGAACC GCGTGAAGCG GCGGGGTGA GGTGTCAGTA
89641 AGCCGATATC GCGCCGCTGC ACTCCAGCCT GGGTGACAGA GCTAGACTGT CTCAAAACAA
89701 ACCAATCCAA ACGAAAAGCA AAAAATACCC TAACAGAAGC AAGTTATCAT CTTTCTTGT
89761 GTAACATATG ACGGCTCTGA AAAATGCCGT TTCAAGTGTA AGCTACGTTT TCTGATTTGA
89821 GTGTTTACTT GACCTTGGCC TTATCGTGGC TCTGTTATTT TGGCAACAGG ACGGCTGAA
89881 TATTGGACAG GACGCTCCC TGAGCAATAG TGACGTTGCC CAGCTGCTTG TTGACCTCCT
89941 CGTCGTTTCG GATGGCCAGC TGCAGGTGGC GGGGGATGAT GCTGCGGGTC TTGTCACGTA
90001 TGGCGCTGCC CACCAGTTCT AAGATCTCGG CGGCCAGGTA CTGTAAGTAC ACTGGCGCAC
90061 CGGCTCCGAC CGGCTCAAAA TAATTGCCCT TTCGAAAAG ATGACGGACT CTGCCCTATT
90121 GGGAACTGCA AGCCCGGTAG CGACGAACAA GTTTTGTCTT TAGCTCCATT TTCCACGTCC
90181 GCAAAATAGCG ACCTATGAAA GCAGCGGAAA ACTGTGAAAG ACAAGCAAGC TGAATGGCG
90241 CCTGAACAAA TCCTTTTATA CAACTGCAA GGCTGCAATA GGAAGCTATC CTATTGGTCA
90301 ATTATGTTTG GTGCTTTATC CAATAGAAAA AGATAACATA AATTCCATAT TTGCATAAAC
90361 CCCACCCCTC AGTGAAACCG TGTTTCTTTT GTCCAATCAG AAGTGAGGAA TCTTAAACCG
90421 TCATTTGAAT CTCAGGACTA TAAATACATG GGCTCTGAAC TGTTCTCTGT ACTACTCTGT
90481 AGTGGAGAGT GTTAGTAGCT TTTCTATTCT GTTTAGGAAT AGCAATGCCT GAACCCCTA
90541 AGTCTGCTCC AGCCCTAAA AAGGGTTCTA AGAAGGCTAT CACTAAGGCG CAGAAGAAGG
90601 ATGGTAAGAA GCGTAAGCGC AGCCGCAAGG AGAGCTATTC TATCTATGTG TACAAGGTTC
90661 TGAAGCAGGT CCACCCGAC ACCGGCATCT CATCCAAGGC CATGGGGATC ATGAATTCCT

```

Figure 9 (Page 28 of 74)

117/162

90721	TCGTCAACGA	CATCTTCGAG	CGCATCGCGG	GCGAGGCTTC	TCGCCTGGCT	CACTACAATA
90781	AGCGCTCGAC	CATCACCTCC	AGGGAGATTG	AGACGGCTGT	GCGCCTGCTG	CTGCCTGGGG
90841	AGCTGGCTAA	GCATGCTGTG	TCCGAGGGCA	CTAAGGCAGT	TACCAAGTAC	ACTAGCTCTA
90901	AATAAGTGCT	TATGTAAGCA	CTTCCAAACC	CAAAGGCTCT	TTTCAGAGCC	ACCTACTTTG
90961	TCACAAGGAG	AGCTATAACC	ACAATTTCTT	AAGGTGGTGC	TGCTGCTATT	CTGTTTCAGT
91021	TCTAGAGGAT	CAACTGGAAT	GTTAGCGAAG	ACAAGTTTAA	GAGCCAAGGT	TAAGTTGGAC
91081	GGGGCCGTGC	GCGGTGCCTC	TTGCCTTTAA	TCCCGGCAAT	TTGGGAGGCC	GAGGCGGGCG
91141	GATCACTTGA	GGTCGGGAGT	TCGAGACTAG	CCCGGCCAAC	ATGGCGAAAG	CCCGTCTCTA
91201	CTAAAATACA	AATGATAGAC	GGTCGTGATG	GCGCTCTTTC	TCATCTGTCT	TAGCAAACCT
91261	CTTTGTTCCT	CCTGGGTAAG	CCTTCGGGTA	CTATGTATAA	TTCTTTTGAT	AAGGTCACCTA
91321	CTCCCTCCCT	GGTCTAGTAC	AGGAACTTC	CCTTCTTGGA	TAATGAAGCA	GGTAATGGAA
91381	TTCAGGGTAT	AGTGTTCCTG	TGGGGGTCAT	TAGCCGTTAA	CTTCTTGTTGA	GATGCGGGGG
91441	AGGGGAGCAG	AAAAGTCTAA	GCGACAAAAG	GGCATGTAGG	GATATTTGCT	CCTGCAGCTT
91501	GCCATATGCTG	TAAATTCCTA	CTTCAAGTAT	TGAGGAAACA	ATAAGCGAAG	TCTGATTTCC
91561	CGGGCGCCTT	TATACGGAAT	ATTTCCCGCT	CCACAAAATG	AAATCGCAGT	AGTTTTGAGT
91621	TATAATTGTT	TATCAATGAC	AACAGCTATG	TAGTTTACAT	ATTTTCATGCA	TCCCAGAAAT
91681	CCAGATTCCC	ATTTCCTAAG	CCACTTAACG	TTCTGATTTT	CAGCTCTGCG	AGATACAAAA
91741	GGGTTTGGAT	TTTGTGCCCT	TCCCATCTG	GCGCCACTGC	AAAGCTTACT	AGGAGGGCCC
91801	CACCTGGAGA	GGGAAATCTT	TTTCGAGAAG	TCCAGGACGC	CAAAAACAAT	ATAGCTAAAA
91861	AAAAAAAAAA	AAAAAAGGCA	GGAAGAGCAC	TAGTTGAGGA	GGAGGACTCA	ATGGGGCAAT
91921	TCTGGGGCTG	GGGCTGGGGG	AAGAAATGCA	AGAAGAAAAG	ACACTTGTTG	ACTGCACAGT
91981	AAGCAGGAGG	GGGTGGGGGA	ATCGGAGGGG	AGTATTTTCA	GCGAAATTTAT	GGGCATTATA
92041	TGTAGGTGAC	ATACAGCAGT	GTCTTTGGAT	GAAGAAATAA	AGTTTCTCAA	ACAGTTCTTG
92101	TTTTTGTGTT	GAGAAAGGGC	CTTCTCTGT	CGGCCAGGCG	CCATCATAGC	TCAGTGCAAC
92161	CTCGACTTCC	CCAGCTCAAG	CGATCCTCTT	ACTTCAGCCC	CTTGAGTGGC	TGGGACTAGA
92221	GAAATGCACC	ACCATACCCA	GTAAATTTTT	TAATTTTTTG	TGGAGGCAAA	GGGTCTTACT
92281	TTGTTGCCCA	GGCTGGTCAA	GCGAACTCCT	GGGCTCAAAT	GATCCTCCCC	CCTTGGCCTC
92341	CCAAAGTCCT	GGGATTATAG	GAATGAGTCA	CCGCGCCCGG	CCCAGATTTA	ATTTTTAAGA
92401	ATCTTTTAAA	AGAGGTTCCTG	GGCCGGGTGT	GGTGCAGCTC	ACGCCTGTAA	TACCAGCATT
92461	TTGGGAGGCC	AAGGTGGGAG	GATCACTTGA	GCCCAGGAGC	TCAAGACCAG	TCTGGGCAAC
92521	TTAGTGAGAC	CTTTTGTCTC	CACCAAAAAT	TTAAAAAATT	AACCAGGCCCT	GGTGGCACAT
92581	TTCTGTAGTC	CCAAGTACTG	GGGAGGCTGA	AGTGGGAGGA	TCATTTGAGC	CTGGAAGGTG
92641	GAGGTTGCAG	TAAGCTGTGA	CGGCACAAC	GCACTCCAGT	CTGGGTGAGG	ACAGACCCTG
92701	TCTCAAAAAT	AAAAAATAAA	AAAAAATCTG	GATGCCACAC	AAAATGTCAG	TGAACAACCTG
92761	TAAGTGAAGC	ACTTCCCATC	CTAGTACTGT	ATATGCAAAAC	TGCCGTTGTG	AAAGTGACGC
92821	TTGGCTTAAA	AATCTACATT	CTTTTTTTTAA	TTATAAAACT	ACCACATCCC	CCAAAAACAT
92881	TACTAAGGAA	TTGAGGCTGC	AGTTTAAGAA	GCTGATATTT	AGGATCTATC	TCCGGAGAAG
92941	TGAGACCTGG	TAATATAAGC	ATTTTCAAAA	TGAACTTTGT	GGCCAGGTGA	GGTGTGTCAT
93001	GCCTGTAATC	CCAGCACTTT	GGGAGACCTA	GTCAGGCAGA	TCACCTGAGC	TCACAATTCG
93061	AGACCAGCCT	GAGCAACATG	GCGAAATCCA	GTCTCTACAA	AAAATTAGCA	GGGCGTGGTG
93121	GCAATATGCC	ATAGTTCCAG	CTACTATAGA	GGCTGAGGTG	GGAGGATTAC	TTGAGCCCCG
93181	GAGGCAGAGG	TTGCAGCAAG	CCAAGATCGC	GCCGCCACAG	CCTGAGCGAC	AGAATGAGAT
93241	ATGCACCCAC	GCCCTAAAAA	AAAGCATGAC	TCATTAAAAA	AAAAAAATTT	AGCCGGTCCG
93301	GGTGGCTCAC	GCCTGTAATC	CCAGCACTTT	GGGAGGCCGA	GGCGGGCGGA	TCACGAGGTC
93361	AGGAGATGGA	GACCATCCTG	CTTAACACGA	TGAAACCCCG	TCTCTACTAA	AAATACAAAA
93421	TAATTAGCTG	GGCGTGATGG	TGGGCGCCTG	TAGTCCCAGC	TACTCGGGAG	GCTGAGGCAG
93481	GAGAATGGCG	TGAACGCGGG	AGGCGGAGCT	TGCAGTGAGC	CGAGATCGCG	CCACGGCACT
93541	CCAGCCTGGG	TGACAGAGCG	AGACTCCGTC	TCAAAAAAAA	AAAAAATAAA	AAAATTAATAA
93601	AAATATGAAG	TTTTGAAGCA	GAAATTATTT	TGTCGTATGT	TCTTTCATAA	ATTTTTTGCC
93661	TGCCCTGCCT	CTTCCTTTGT	TACAGAACTC	CAACACTTAC	CCAAAGGTAG	CTGTTGGGTC
93721	AGGGTTTCTG	TACTATAGTC	CCTTCTGTGG	TGGCCAGAAA	TATGTTACAG	GAAAGAGGTC
93781	CCCATCCAGA	CCCCAAGAGA	GGGTTCCTTG	ATCCCGCGCA	AGAAAGAGTT	CAGGGTGAGT
93841	CCGCAGTGCA	AAGTAAATGC	AAGTTTACTA	AGAAAGTAAA	GTGGTGAAAC	GACAACACT
93901	CCATAGACAG	AGCAGGACAT	TCCCGAAAGT	AAGAGGAGGA	AGGCATCCAC	CCTAGGTACA

Figure 9 (Page 29 of 74)

118/162

93961	ATACTTGTAT	ATATGGGGAG	ATGTGCTCTG	CTACAAGTTT	GTGATAAAGG	ATTAATTTTC
94021	TTAGTTACTA	TATTTTGCAA	GAATCAACAT	TATTATCTTT	AAACAAAATT	AAGAATGCCT
94081	TTGTTCTCCA	GATATAGGGA	TATCTGGACA	CTCCTAAGTC	TGAGTCTGTT	TAGTAAACAT
94141	TATTTATTTG	TTCCCTTAAC	CGTAAACATC	TAGAAGCTAG	GAATGACTGA	CTTTCTGGGA
94201	ATGCAGCCCA	GAAAGTCTCA	GCCTCATTTT	CCTAGCCCTC	ACTCAAAATG	GAGTTACTCT
94261	GGTTC AAGTA	ACTCTGACAC	TTTTCTTCTC	TTTTTTTCTT	CTTTTTTCCT	TCCTTTATTT
94321	TTTATTTTTT	ATTTTTGAAA	TAAGAAATCA	AGAATACTTG	ATGTTTCATC	TAAAACAATA
94381	CCCATAATTG	ATAAGCCAAA	ACAAAAACCT	AGGTCTTCTA	ACTCAAAACT	AGGATGTTTT
94441	GCTGTCTCTG	CTGATACTCG	GCTGATCGTT	AATAGGTAAT	TAACAAACAA	GCCTTGCTAT
94501	GTCCCCCTCA	GTTTATTACC	ATTAGATCAT	ATGCCTACTG	TCAATCATAT	TAATCCACAA
94561	CTATGCATTT	CACAAAACCT	GCCATAAAAA	TTCACAGGTT	TCCCGCTTCC	CTCGAGTTTT
94621	CATTTCCGAA	GGGTCCCATG	TAATATAAAA	CTTATATTAA	ATACATTTGT	ATGCTTTTCT
94681	CTTGCTAATC	TTTTTTTTTG	TTTTTTGAGA	CTGAGCCTTG	CTCTGTCACC	CAGGCTGGAG
94741	TGCAATGGCG	CGATCTCGGC	TCACTGCAAC	CTCCGCTTCC	CAGGTTCAAG	CGATTCTACT
94801	GCCTCGCCCT	CCCGAGTAGC	TGGGACCACA	GATACGTGCC	ACCATGCCCC	GCTAATTTTT
94861	GTATTTTTAG	TAGAGACAGG	GTTTCACCGT	GTTGGCCAGG	ATGTTCTCAA	TCTCCTTACC
94921	TCGTGATCCG	CCCGCCTCGT	CCTGCCAAAG	TGCTCGGATT	ACAGACGTGA	GCCACTGCAC
94981	CCGACCAATC	TGTCTTTTTG	TAGAGGGGCC	TCAAGCATGA	ACTTACTGAT	GGGTGAGAAA
95041	AACAGAATTT	TCTTTTCCCC	TACAATATAA	ACATTAATTG	TAATGTTATC	ATTGAGGACA
95101	TTTTGGTGAC	CAATCTTACA	GAAATTTTAT	CTTGTGCAAG	TCTATGCAAA	CCAATATGTA
95161	AATCTTCTAT	AAGTGAGATT	GTATTTTCACT	TTTCTAGTAT	CCTTTTAAAT	TAATAAAAGA
95221	GATTCTAATG	ATTATTTTCA	TTACTGCATT	TCATTGTAGG	GAAGTAGATA	ATTGCCCTTT
95281	ATTCCTGAC	CTTCGCTTTT	TAAAAATTTA	AACCATGTTA	CCATGAAAAT	GCTTTTCAGT
95341	ATTTCTCTAC	ACACAAGATT	GCTGTAAGGG	CAAAAAATAGA	GATAGGAAATC	ATGCATCCAT
95401	TGATATACAT	ATTTTGATTT	TTAATACATG	TTACCAAGTT	GCCTCCTGAA	GGTCTGTTTA
95461	CACTCTCACC	AACAGGGTGT	TTTTTCCTGA	CTTCCACAAA	TGCTCTTGAA	CAGTGGGTGT
95521	GTTAGTCTGT	TCAAATTGCC	GACATGAACA	ATTAAATCTC	ATTGTTGTTT	TTATTTTTTAA
95581	GACAATTATT	GTTTGAGACT	GCACATTTTG	ATAATAACAT	TTCTTCTATT	ATGGTTTGAT
95641	TACTCATGAT	TCTTGCCCAT	TTTCTTTTGG	GATGTTGCCT	TATGTACATT	ATTTTAAATA
95701	GATAGCTCCA	TGTATTAAAA	GATTATTAAG	TTTGAGGGCT	TATGATATGT	CAGTTACATT
95761	TCTAAGATTT	TTTTTTTTTTT	TTTTTTGAGA	CGGAGTTTCA	CACTTGTTGC	CCAGGCTGGA
95821	GTGCAATGGT	GCGATCTCGG	CTCACC GCAA	CCTCCGCTC	CAGGGTTCAA	GCAATTCCTC
95881	TGCCTCAGCC	TCCCCAGTAA	TTGGGACTAC	TGGCAAGCGC	CACCACGCCT	GGCTAATTTT
95941	GTATTTTTAT	TAGAGATGAG	GTTTCTCCAT	GTTGGTCAGA	CTGGTCTCGA	ACTGCCGACC
96001	TTGGCTTAAA	AATCTACATT	CTTTTTTTTAA	TTATAAAACT	ACCACATCCC	CCAAAAACAT
96061	TACTAAGGAA	TTGAGGCTGC	AGTTTAAAGAA	GCTGATATTT	AGGATCTATC	TCCGGAGAAG
96121	TGAGACCTGG	TAATATAAGC	ATTTTCAAAA	TGAACTTTTG	GGCCAGGTGA	GGTGTGTCAT
96181	GCCTGTAATC	CCAGCACTTT	GGGAGACCTA	GTCAGGCAGA	TCACTTGAGC	TCACAATTCTG
96241	AGACCAGCCT	GAGCAACATG	GCGAAATCCA	GTCTCTACAA	AAAATTAGCA	GGGCGTGGTG
96301	GCATATGCCT	ATAGTTCCAG	CTACTATAGA	GGCTGAGGTG	GGAGGATTAC	TTGAGCCCGG
96361	GAGGCAGAGG	TTGCAGCAAG	CCAAGATCGC	GCCGCCACAG	CCTGAGCGAC	AGAATGAGAT
96421	ATGCACCCAC	GCCCTAAAAA	AAAGCATGAC	TCATTAAAAA	AAAAAAATTT	AGCCGGTCGC
96481	GGTGGCTCAC	GCCTGTAATC	CCAGCACTTT	GGGAGGCCGA	GGCGGGCGGA	TCACGAGGTC
96541	AGGAGATGGA	GACCATCCTG	CTTAACACGA	TGAAACCCCG	TCTCTACTAA	AAATACAAAA
96601	TAATTAGCTG	GGCGTGATGG	TGGGCGCCTG	TAGTCCACAG	TACTCGGGAG	GCTGAGGCAG
96661	GAGAATGGCG	TGAACGCGGG	AGGCGGAGCT	TGCAGTGAGC	CGAGATCGCG	CCACGGCACT
96721	CCAGCCTGGG	TGACAGAGCG	AGACTCCGTC	TCAAAAAAAA	AAAAAAATAA	AAAAATTAAA
96781	AAATATGAAG	TTTTGAAGCA	GAAATTATTT	TGTCGTATGT	TCTTTCATAA	ATTTTTTGCC
96841	TGCCTGCCTT	CTTCCTTTGT	TACAGAACTC	CAACACTTAC	CCAAAGGTAG	CTGTTGGGTC
96901	AGGGTTTCTG	TACTATAGTC	CCTTCTGTGG	TGGCCAGAAA	TATGTTACAG	GAAAGAGGTC
96961	CCCATCCAGA	CCCCAAGAGA	GGGTTCTTGG	ATCCCGCGCA	AGAAAGAGTT	CAGGGTGAGT
97021	CCGCAAGTGA	AAGTAAATGC	AAGTTTACTA	AGAAAGTAAA	GTGGTGAAAC	GACAACTACT
97081	CCATAGACAG	AGCAGGACAT	TCCCGAAAGT	AAGAGGAGGA	AGGCATCCAC	CCTAGGTACA
97141	ATACTTGTAT	ATATGGGGAG	ATGTGCTCTG	CTACAAGTTT	GTGATAAAGG	ATTAATTTTC

Figure 9 (Page 30 of 74)

119/162

```

97201 TTAGTTACTA TATTTTGCAA GAATCAACAT TATTATCTTT AAACAAAATT AAGAATGCCT
97261 TTGTTCTCCA GATATAGGGA TATCTGGACA CTCCTAAGTC TGAGTCTGTT TAGTAAACAT
97321 TATTTATTTG TTCCCTTAAC CGTAAACATC TAGAAGCTAG GAATGACTGA CTTTCTGGGA
97381 ATGCAGCCCA GAAAGTCTCA GCCTCATTTT CCTAGCCCTC ACTCAAAATG GAGTTACTCT
97441 GGTTC AAGTA ACTCTGACAC TTTTCTTCTC TTTTCTTCTT CTTTTTTCCT TCCTTTATTT
97501 TTTATTTTTT ATTTTGTAAA TAAGAAATCA AGAATACTTG ATGTTTCATC TAAAACAATA
97561 CCCATAATTG ATAAGCCAAA ACAAAAACCT AGGTCTTCTA ACTCAAAACT AGGATGTTTT
97621 GCTGTCTCTG CTGATACTCG GCTGATCGTT AATAGGTAAT TAACAAACAA GCCTTGCTAT
97681 GTCCCCCTCA GTTTATTACC ATTAGATCAT ATGCCCTACTG TCAATCATAT TAATCCACAA
97741 CTATGCATTT CACAAAACCT GCCATAAAAA TTCACAGGTT TCCCGCTTCC CTCGAGTTTT
97801 CATTTCCGAA GGGTCCCATG TAATATAAAA CTTATATTAA ATACATTTGT ATGCTTTTCT
97861 CTTGCTAATC TTTTTTTTTG TTTTTTGAGA CTGAGCCTTG CTCTGTCACC CAGGCTGGAG
97921 TGCAATGGCG CGATCTCGGC TCACTGCAAC CTCCGCTTCC CAGGTTCAAG CGATTCTACT
97981 GCCTCGCCCT CCCGAGTAGC TGGGACCACA GATACGTGCC ACCATGCCCC GCTAATTTTT
98041 GTATTTTTAG TAGAGACAGG GTTTCACCGT GTTGCCAGG ATGTTCTCAA TCTCCTTACC
98101 TCGTGATCCG CCCGCCCTGT CCTGCCAAAG TGCTCGGATT ACAGACGTGA GCCACTGCAC
98161 CCGACCAATC TGTCTTTTTG TAGAGGGGCC TCAAGCATGA ACTTACTGAT GGGTGAGAAA
98221 AACAGAAATTT TCTTTTCCCC TACAATATAA ACATTAATTG TAATGTTATC ATTCAAGACA
98281 TTTTGGTGAC CAATCTTACA GAAATTTTAT CTTGTGCAAG TCTATGCAAA CCAATATGTA
98341 AATCTTCTAT AAGTGAGATT GTATTTCACT TTTCTAGTAT CCTTTTAAAT TAATAAAAGA
98401 GATTCTAATG ATTATTTTCA TTACTGCATT TCATTGTAGG GAAGTAGATA ATTGCCCTTT
98461 ATTCCTGAC CTTGCTTTTT TAAAAATTTA AACCATGTTA CCATGAAAAAT GCTTTTTCAGT
98521 ATTTCTCTAC ACACAAGATT GCTGTAAGGG CAAAAATAGA GATAGGAAATC ATGCATCCAT
98581 TGATATACAT ATTTTGATTT TTAATACATG TTACCAAGTT GCCTCCTGAA GGTCTGTTTTA
98641 CACTCTCACC AACAGGTGT TTTTCTCTGA CTTCCACAAA TGCTCTTGAA CAGTGGGTGT
98701 GTTAGTCTGT TCAAATGGCC GACATGAACA ATTAATCTC ATTGTTGTTT TTATTTTTTAA
98761 GACAATTATG GTTTGAGACT GCACATTTTG ATAATAACAT TTCTTCTATT ATGGTTTGAT
98821 TACTCATGAT TCTTGCCCAT TTTCTTTTGG GATGTTGCCT TATGTACATT ATTTTAAATA
98881 GATAGCTCCA TGTATTAAAA GATTATTAAAG TTTGAGGGCT TATGATATGT CAGTTACATT
98941 TCTAAGATTT TTTTTTTTTT TTTTTTGAGA CGGAGTTTCA CACTTGTTGC CCAGGCTGGA
99001 GTGCAATGGT GCGATCTCGG CTCACCGCAA CCTCCGCCCTC CAGGGTTCAA GCAATCTCC
99061 TGCCCTCAGC TCCCCAGTAA TTGGGACTAC TGGCAAGCGC CACCACGCCT GGCTAATTTT
99121 GTATTTTTAT TAGAGATGAG GTTCTCTCCAT GTTGGTCAGA CTGGTCTCGA ACTGCCGACC
99181 TCAGGTGATC CACCCGCCCTC GGCCTCCCAA AGTGCTGGGA TTACAGGTAT GAGCCACTGG
99241 GCCCGGCCAC ATTTCTAAAT TCTTTATAAG TATAAATTCA TTCAATCTTC ACCAAAACCTC
99301 AATGAAGTGT GAGTACTATT ATTATCATTG TTTTACAGAT CAAAACAAGT AATACAGTCA
99361 CTTACTGAGT TCTATACACC TGGTAATTTT TTTGTTTCGT TGTTCATCA ATTATTGGGG
99421 AAGGGGTGTT GAAATCTCTA CCTTTAAATC ATGTATGTGT CTATTTCTCC TTTGCTTCT
99481 ATCAGGTTTT GCTACACATA TTTTGCAGTT CTGTTATTTG GTGCATATAC ATTTAGAATT
99541 GCTTGTTTTT CGTATTGGAT TGACCCTGTT ATCATTATGT AATATCCCTG TCTGTTCCCTA
99601 GTAATTTTCT TTGCTCTGAA ATATACTTAT CTGATATATC ATCCAAAAGA CCACCAGGAT
99661 GGCTAAAGAG TAGAAAGGAG AGATTTACTG GCAATACTAA TTTGCAAGCC AGGAAGAGAT
99721 GGTCCCAGAA CCTGCCAAAA TTAATCTCTC TTTGGGGAGA AGGAGCAGGT TGGTTATTTT
99781 TATGCCTCAT AGGCTATATA TTACACAATA GAGTCATACA TATTTAGCAC GTTTGGGGGG
99841 ACAGCTATAT ATATTATGAG GGGTGCCAAG TGCAATCACA ATGGATAAAC ACGTGTAAATA
99901 TACCTCCCAT GTTCACTTCG AGGTTAAATT TTGGTTAAAA TGAGGTAGAA TTTAGGTCTT
99961 TACATCACAA GGTGAACAT AGGAACAAAG TTTACGTGCT GCCTCTAGCA GCTGGCTGAA
100021 AATGGCTTAA GGTCTACAAT TACGTGTAAG AATAGAATGT GTGTCAAGGC GGTCTCTGT
100081 CCAATCAGAG TTGTAGTGGA CTGGACTGTA AATCAGAGTT AGGAGGGCTT CTGATAGCTC
100141 CTATAGTTAA GGAATTTAGC AAGTGTGAGT TTTTGGTAG TCTTTGGAAT TTAGGAATTT
100201 GCCATGCCAG CCAAGCCATG AATGCTCTAC CAGTAGGTAA CTTTGTTTGC TTAATCTTAG
100261 AGTCTGTCTT AGTTGGTATA GGGGCATCTA TTTTGGTCTT TCAGATCCCA GATATTATTA
100321 ATACAGATAC TCTGCAGTT TTGGGCTGAT GTTTATATGG CTTATCTTTT TTGCAGCCTT
100381 TAATTTCAAC CTGCGTTATG TTTATATTTG AAGTGAGATT CTTGCAGACA GTGTACAGTT

```

Figure 9 (Page 31 of 74)

120/162

100441	GTGTGTTTTT	TTTTTTTTTGA	GATGGAATTT	CACCTCTGTT	GTCACGGCTG	GGGTGCAGTG
100501	GCACAGTCTC	AGCTCACTGC	AACCTCCGCC	TCCTGGGTTT	AAGGGAATCT	CCTGCCTCAG
100561	CCTCTTGAGC	AGCTGGGATT	GCAGCCATGC	GCCACCACAC	CCGGCTAATT	TTTGTATTTT
100621	TAGTAGAGAC	AGGATTCACT	ATGTTGCCCA	GGCTGGTCTC	GAACCTCTGA	CCTCAAGTGA
100681	TCCGCCAGCC	TCGGCCTACC	AAAGTGCTGG	GATTACAGGT	GTGAGACCTC	GCGCCCAGCC
100741	AAACTGTTTT	TTTATGGGTG	TATTTATACC	ACACACATTT	AATGCAATTA	TTGATATCTT
100801	AGGGCTTAAG	TTCATGAAGG	GTAGTGCTGG	AACCATAGTC	TCTTGGCCCA	CTAAATGTTT
100861	GCCAGAAATC	ACTGACAAGG	CAGATTGATT	AATAGGTGAA	AAGGCATTTT	ACCTATTGTT
100921	TAACGTGTCT	ATGTGGGAGC	ATTCAGAATT	AATTACCTAA	CTTCCCAATG	AGTTATAGA
100981	GCTTATATAC	CATTTTTTAGA	TCACAGAAAG	AATTGGGGCT	TAGATTCTGG	TAAAACAGG
101041	TATGGGAGGC	AAAAGAGGTT	TGGCTTGCAA	AGGTGGCCTT	GTTAGGTAGG	TGAAGCCTCC
101101	CTCAGAAAGA	ACAGATGGTA	AATGTTTCTT	TTATGATTTT	TAAGTGTCAG	ACTCTCAGTC
101161	TCTCCTGGAT	CTGGGGAAAG	GTATAGAAAG	GTGAGGAGGC	ATGGCTGCAT	TAATGGAGAT
101221	TCTCTACAGA	TGTAATAATT	TTCCCATTTA	AGGCAGCTTT	GCAAGCCCAT	TTCTGCCTGC
101281	TGGCCAAGCA	GCAGCCATTT	CAAAATATGT	CAAAGAAATA	TATTTTGGGG	TAAAATATTT
101341	TGATTTCTTT	TAGACTGGTG	GCCTTATAAG	AAAAGGAAGA	GACACCTGAG	CTGACACACA
101401	TACCCTTGCT	CTCTCAACAT	GTTATGATGC	AGTAAGAAGG	CCCTCACCAG	ATACTAATTC
101461	CATGCCCTTA	GCTTCCCAGG	TTCTAGAACA	GTAGGAAATA	AATTTCTTTT	CTTTAAAGT
101521	TAGCCAGTCT	GTGGTATTCT	GTTATAGTAT	CACAAAATGG	ACTAAGTAAC	TATATTATGA
101581	TCATTCTTACA	TGACTGATCC	CTCCTACATC	ATACACATAC	ACAGGCCACA	TTTGGAACAT
101641	TGTTAGAGGT	TCCTCTACCC	AGTACAAATG	TACTACAAAT	TATATATGTA	TTTTTAAATT
101701	TTTGAGTATC	TTCAATAGTA	TATTTTCGTT	AACCTTTGTA	GTCAAAATGT	CATTATAACA
101761	TGTATTCAAT	ATGCATAATT	ATTATGTCAG	TGTTTTACAT	TCTTTCTTCA	TACTAAGTGA
101821	TATGGTTTGG	ATATTTGTCC	CCTCTAAATC	TCATGTTGAA	ATGTAATCTC	CAATGTGGGA
101881	AGTGAAGCCT	GGTGAAAGGT	TTTTGGATCG	TGAGGGTGAA	CCCTCATGTA	AGCGCACTCT
101941	TCAGGGTAAT	CAATGGGTTC	TCACCTTTGAG	TTCAACAAGAG	ATCTGGTTCT	TTAAAAGAGT
102001	GTGACACCTC	CCCCATCTCT	CTCGCTCAGC	TCTCACCATA	TGATATGCCT	ACTCCCTCTT
102061	CACCTTCCAC	CATGATTGGA	AGTTTCCTGA	GGACTTGCCA	GTAGCAGATG	CCTGCACCAC
102121	ACCTCCTGTA	CAGCCTGCAC	AACCGTGAGC	CAAAAAAAT	TACTTTTCTT	TATAAATTAG
102181	TCAGTTTCAG	GGATTCCCTT	ATAGTAATGC	AAGAACGAAC	TAACACACTA	AGTCTATTTT
102241	ATATTTACAG	AATAGCTCAA	TCTGAAGTAC	CCTTTTTCAT	CTTCACAGTA	GCTACTTGTA
102301	GCTAGTGGGC	ACTGATTGGG	AGCGTGTTCA	AGGGTGAATT	GTATTATGCA	ATTAACAGAT
102361	TTTTTTTATT	GTTTTTCGCA	ACCACGAGGC	ATAGATTGTC	TTACTTTCTC	TGCTCCTGGT
102421	GTTGGAGTTG	TTATTGGGAA	ACAACCTATT	TTCTCTTAT	ATTTATATGG	AATAAATAAC
102481	CCCCAATATT	TCCCTCCCCA	ATATCTGCCT	TTTGTATGTT	TTTTGAAGGC	AAGTGCCTAG
102541	AATTTACTGT	TTTTGAAGCA	CTTACTGAAA	GGATTGCCAT	CAAGTTGTTT	TGCTAATAGT
102601	ACATGCCAGG	CGCTTGTTGG	TTTGCTTAAT	TCAAGGTAAC	TTGGATGAGA	AGAAGAGTTT
102661	TTCTCATCCA	TGGCTCAGTG	GAGTATAGAT	TACTGATATT	GTGACTGGAT	GTACTCCTGC
102721	TTTCTAGTCT	GAGTTTTTGA	AGCTACCCCT	AATCTTGGTT	TCAATTTTAT	CTAGCCCTGT
102781	ACATATCCAA	GGCTCTTTCC	AAAATGGTCT	ACGATTTGTT	TAGGAAGTTA	GAATAGCTGT
102841	ACTTTCTGAA	CCACGGTTCC	TGACATTTTC	TGGACTTCAA	ACACATCCAG	CATTTTATCG
102901	AAGTATTTAT	CCTTCCTACT	TGGCTGGCTT	CCTCCTTGCC	TTCAGGTCTG	AATTCAAATG
102961	ACATTCTCCT	GATGAAACTT	TCCATCCTTA	TTTCTATTCT	TTTTTCTTAT	CCCCTTTCTT
103021	TATTTTCTCT	CACAGCACTC	ATCACTTATC	TCTACATTTT	CATTATGTAT	TTACCTTATT
103081	GTGCACCTCC	CACACAAAGA	CAAGTAGCAC	CGTAAGGAAA	CAGGTGTGCT	GCTTTTTTCA
103141	TGCTATGCTC	CCTGCACCTA	GAACACTCTC	TGGCACTTAG	CAGGTTTTCA	GTAAATATAT
103201	GCTGAACATA	TAATGCTGGA	TATACATCTC	CCTCATGAAC	TCTCTAAATC	CTTCTAATTT
103261	ACATTGATCA	ATCTTCTTTT	CCATGTGCTT	TTGTATGATT	TATTGCTCAA	AATCTTTATT
103321	TTGTATGCAG	AACGTGCACT	GCTATTTAAT	CTTCATGTAC	GTAAGTCCTC	CCTTCTCTGA
103381	GTATAATCTC	TTCAGGGCAC	TATCTGAGAT	AACCTTTTAA	CATCTCCATT	ATGAATCTTG
103441	TACCTTTTCA	AAGAAAATGA	GCCAGTGATT	ACTGATGTTT	ACGGCTATTG	TGAGGGTGTA
103501	AGATCATTAT	AATTTTGAAG	AGGGAAGTTG	AATATTGTGA	AGGGAAGATG	AACACTAGAG
103561	TCAGAAGACT	TGGGAGAAGG	CAAAAAACAA	ACTAAAAATG	AGCACTTTTA	GTCTCCTGAC
103621	AGTTTCTCTG	AATCAAATCC	ATAGTTCTGT	GACAGCGTTG	GCTTAGAAGC	AGATTTTTTT

Figure 9 (Page 32 of 74)

121/162

```

103681 TTTTTTTTTT TTGAAATGGA GTTTCGCTCT TGCCCAGGCT GGAGTGCAGT GGCACGATCT
103741 CGGCTCACTG CAACCTCTGT CTCCAGGGTT CAAGCGATTG TCCTGCTTCA GCCTATGGAG
103801 TAGCTGGGAT TACAGGCTCC CACAACCACG CCCAGCTAAT TTTTGTATT TTTAGTGAAG
103861 ACTGGGGTTT CACCATGTTG GCCAGGCTGG TTACGAACTC CTGTTCTCAA GTGATCTGCC
103921 CGCCTTGGCC TCCCAAAGTG TTGGGATTAC AGGCATCAGC CACCGTGCCC AGCCAGGAGC
103981 AGATTTTTTT AACTCATGT TTCTTTTCC TTCTGTCATC CTGTTTCAGT ATAAGCAGAC
104041 CACAGATAGA AGTAGTAGAT ACCTCAGAAA TTCCTGGAAT AATTAATCCA CGTTCATCTG
104101 TACTCCATCT GCTCCTATCT CATGGAATAT AAAAGGAAAA ACACCAAGAT TTCCCTAGGC
104161 AATCTGTCTT GATTTTAGGT TCCTCAACAG GAGAGCCAGA CAATGGCTGT AATAATATTG
104221 TCCCGGCCAA GGAAAAACTT CCCCTTTGCC CTCCCAAGGT TTATGGAAAA TTACTGGCAA
104281 AACACAGATT AACTGGAGAA AAGGCATATA TATTTATTTT ATCACAATTT TACAGGAGAT
104341 TTTAGAAATTA AGACTGAAAG ATACAGGGGA AATTGCCCAT TTTTATGCTT AGGTTCAACA
104401 AGATAAACAG CTGTATAGGG TACGATCTAA TGCTAACAGA CTGAGTGGGG AAGCCCCGCA
104461 AGGCTTGTCT GTCAAGATTG TTCTTGACCT CTCAGTGCAG CATTTCTTCC TTCTGGTTAT
104521 AGGACAAAGAC TCTCTTTTAG AATGGGGGGT CTTATGACCT ACAGGCAAAC AAGGTAGGTT
104581 AGAGTAATAT TTTTAGGTTT TATGGCTGGT TCTAGGAAA AGGAGTCTCT GTTTGTATGG
104641 CCTACCTTGA GGAGGAATTC TGGTTTCTAT GGCTAGACTT TGGGGAGAAT GGGACTTACA
104701 GACAGGAAGG CAGAAGGTGG TCAGTGAAAC ACTTTTATAA TCATAATCCC ATTTTGAGTA
104761 TTTCTGTGTT ATGGAATGTT TGTTCTCTCA TTTCTGAAA GATTCCAGAG ACTCCTCATT
104821 CAGTGTGTG AAAAAGTTCA GGAAATGCAA CTCAAAAATG TGCCACTTTG TTACGCTGAT
104881 TTCTTTGAAC TGAGGGCACC TAGGAAACAG TAAATTCAAG GAAGGGCTTT CGCTGAACTC
104941 TAATCAAAAA TTTGAAAATT AAAAAAAAT TCAAAAAGGA ATTTAGTTGT TAAGATTCAC
105001 TTCCCTGGGG AATCTCATCA ACCAGAGAAG ATTAAGTGTG TCACAGGAGA GGAGACTGGT
105061 GGTTAACACC ATCTAAACAG ACTTTGTCAC AGCTGTCACC TATTCTTTGA AACACCCATT
105121 TATTTTCTC CAAAATCATA TACTCTCCCC TAAGTTGCCT ACATCCCCCT TCTTCTCCCC
105181 TTATGAATCA AGAGAGCTTA TAAGCTTCTA CAGTTCAGT GGATTTGGGG TATTCGCTTT
105241 TCTTCCCTCC CACTCCCCCT CCCCTTTTTT TGTCTTTGAG ACACAGTCTT CTGGCTCTGT
105301 CGCCACGCT GGAGTGTTG GGCTCTATGT GAACTCACTG CAACCTCCTC CTCTCGGGTT
105361 CAAGCGATCC TCCACCTCA GCTTCTCGAG TAACTGGAAC TACAGGCGTG CACTACCAAG
105421 CCCGGCTTTT TTTTTTCTT TTTCTCCCC GTTCTTTTT TGGTTATTTT ACTGGAGACA
105481 GGGTTTCTCC ATGTTGTCCA CGCTGGTCTC GAACGCCTGA CCCGCCGTCC TCGGCCTCCC
105541 AAAGTGCTGG TATTACGGGC ATGAGCCACT GCGCCCGATT TGAAGGACCT CTTAAATATC
105601 TATTTAGAAA TTGGTCGGAG TCCACTCCTT TCCAAAAACA TGAGTCACAA TCCGGGAAAA
105661 GCACGAGCGG CTGAAAGTCA AAATAACCAG AACAAAACCT CCACTCATGC TTAAAAAAGG
105721 TATTTTGACA AAATCCTAAT TCGGCCAATT ATTATTAGTA TTCAAGTCGA AGGCTCGTCA
105781 AGCCAGACTG GGGATTGGGT CAAACATAAA CCTTACACCA GACGGAAGGA TTACATGCAA
105841 ATGAAGGATG CAGATTCTGA TTTCCCATG GGTATTTGAC ATTAGCCAAT GGGAGAATTC
105901 CTCACAGCCT ACCTCCAGTC AGTATAAATA CTCTCTGCC TTGCGTTCTA ATGTAGTTTC
105961 ATTACATTTT CTTGTGGCGA TTTTCCCTTC TTATCAGAAG TAGTTATGTC TGGTCGCGGC
106021 AAACAAGGCG GTAAAGCTCG CGCCAAGGCT AAGACTCGGT CTTCTCGTGC AGGTTTGCAG
106081 TTTCTGTGG GCCGAGTGCA CCGCTGCTC CGCAAAGGCA ACTACTCCGA GCGCGTCGGG
106141 GCTGGCGCGC CGGTGTATCT CGCGGCGGTG CTTGAGTACC TGACCGCCGA GATCCTGGAG
106201 CTGGCGGGCA ATGCGGCCCC CGACAACAAG AAGACCCGCA TCATCCCGCG CCACCTGCAA
106261 TTGGCCATCC GCAATGACGA GGAGCTTAAT AAACCTTTTG GCGTGTGAC CATCGCGCAG
106321 GGTGGCGTTT TGCCTAATAT TCAGGCGGTG CTGCTGCCTA AGAAAACTGA GAGCCATCAT
106381 AAGGCCAAGG GAAAGTGAAG AGTTAACGCT TCATGCACTG CTGTTTTTCT GTCAGCAGAC
106441 AAAATCAGCC TAACAGCAAA GGCTCTTTTC AGAGCCACCT ACGACTTCCA TTAAATGAGC
106501 TGTTGTGCTT TGGATTATGC CGCCATAAA GATGTTTTTG AGGTGTTTTT AATGGCTTTG
106561 AGTGTGGCAC TTTTAGTAAT TTGTCCTGCA GAAATTAGAT CCATAGAAAC CTCAGGAATT
106621 CTAGGTATGT GGGAGAAGTG CCATGCAGCA CAAAACATGT TTACAGGGGT GATTGCGGTT
106681 AAGTTTCA CAACAGCAGT ACTACATTT AGAGGAAGGA AATTATACCC ATGAGTGCAT
106741 TCCTAACTAT CTTGAATGGA AGTGTTAAAA CCCGCATGCC CCACACAAGT TTGAATATGT
106801 CATACCATT GCTGTAGCAA TTAATGGCAT ACACAATTGA GAGCACACAC ATTACCACTG
106861 AACATTTGAG TATGTATTTC CAAAATGAG CTTTTTTCCA GTTTGGGGAT GTTTTGCTTT

```

Figure 9 (Page 33 of 74)

122/162

```

106921 GTTTTGGGGT GGAGTCTCCC TCTCGCCCAA GCTGGAGTGC AGCGGCGTGA TAACAGCTCA
106981 CTGTAACCTC GAACTCGGGC TCAAGCGATC CTCTTGACAG CCTTCTGAGT AGCTGGGATT
107041 ACAGGCGAGA GCCGCCACGC CCGGCTAAGA GCATTTTCTT AATTGCCCAC ACTTCTTATG
107101 CGACACCCAG AAAAATACAA TTTTAAATAA AGCGCATATG CAAATTTCCC TAATCGTCTC
107161 CAATATTCTC TGATTCTTTT TTTATATTTT AACTAGAAAC AATTGGAGGT TTCCGCGTTG
107221 CTTTGTGTGG TTGTAAATTT TAAGACTTCA GGAAACTTTT CCAGTACAAG ACTTGTCAC
107281 AGTGGATATA GCAGCTAAGG GGTAAACAAA ATGACGTCAG AGTAGCTACG GTAATGGGCA
107341 GGAGCCTCTC TTAATCTGCA ACCAGGCACA GAGATGGACC AATCCAAGAA GGGCGCGGGG
107401 ATTTTGAAT TTTCTTGGGT CCAATAGTTG GTGGTCTGAC TCTATAAAAG AAGAGTAGCT
107461 CTTTCTTTC CTCCACAGAC GTCTCTGCAG GCAAGCTTTT CTGTGGTTTT GCCATGGGCTC
107521 GTACTAAACA GACAGCTCGG AAATCCACCG GCGGTAAAGC GCCACGCAAG CAGCTGGCTA
107581 CCAAGGCTGC TCGCAAGAGC GCGCCGGCTA CCGGCGGCGT GAAAAAGCCT CACCGTTACC
107641 GCGCGGGCAC TGTGGCTCTG CGCGAGATCC GCGGCTACCA AAAGTCGACC GAGTTGCTGA
107701 TTCGGAAGCT GCCGTTCCAG CGCTTGGTGC GAGAAATCGC CCAAGACTTC AAGACCGATC
107761 TTCGCTTCCA GAGCTCTGCG GTGATGGCGC TGCAGGAGGC TTGTGAGGCC TACTTGGTAG
107821 GGCTCTTTGA GGACACAAAC CTTTGCGCCA TCCATGCTAA GCGAGTGACT ATTATGCCCA
107881 AAGACATCCA GCTCGCTCGC CGCATTCCGC GAGAAAGAGC GTAAATGTAA AGTACTTTT
107941 TCATCAGTCT TAAAACCCCA AGGCTCTTTT CAGAGCCACC CACTTATFCC AACTGAGTA
108001 GCTGTGATAA TTTTTTGTG TCTTAAACAGA ACAAATTTCT AAGGACCCCC CCGGAAAGCA
108061 TTAGACTATG GTCTTAAAGT TGATTAACAG AAATAACGGT TTGGTCAGTC TTGCAGTGTA
108121 GGTTATTTCT GACCTTATTA AGGTGCTATT TGGAGAGAAG CTGTGTAAAG CCACTATCAT
108181 TCAGGCCTCT AGCTTGCTAT GATTAGCATT TGTTTAAACA ACTTTGTAAG AGTAAGGGAA
108241 AAATCTGGTA AGTAGTTAAC TGGCGCTTAC TAGGCATTTT TGCAAAGCTT TGAAAAGATT
108301 AGAAAATTGT GTCTTGCGAG TTCCAGTGTC TTCCTCAAAA TGCTTAGGAA GATTTTCTCA
108361 GCTCAATACA TAGTCCCCTA GGTTTTCTCA TATATTATAT ATATATATAT ATATATATAT
108421 ATATATATAT ATATACTGTT AAATTCATTT GGCTGTAAAC ATTAACCTGA AATTTATTCT
108481 GGTGCAAAAT GTGAGGCAGG GATCTAACTG GCTCTCATTT TATCCATAGC TAGCTACCCA
108541 CTTTAAATCT GTCAGTCTGT CGACCAAGCA TAATTTAATC CCTTATATAT GAATTTTAT
108601 ATGTGTGGCT TTGCTTGTA ATAGTCTATC TGGTTGCATT GCTTTGTCTC CTCTAGGACT
108661 ATGCACCATG ACATGCCACA TTCTTTTTTT CAGTACTTCT TGCCTGTAGT TATTAATAATC
108721 TAGAATTTAC AAGTTTAAAC CATTTTCTTT CTGTTGATCT TGCTTTTCGG TTTTGGAGGT
108781 TGGGGATTGA GTACTGGAAG AAAATTTAGA GGGATGGGAA TACTGTACGC AAACAAAAGT
108841 AATATTTACT TTAAATTTT TATATTTTGT ATTTTATTTAT CATATAGCTT TTACATCACA
108901 TTTTACAGAC TAACTTTAGA ACAACCACAG AATGTCCAAC ATTAATACTA CTAATTCAC
108961 AGACCTTGCC TCACATTCTT TTTTACAATA AATATTTTTT ACACCTAACA TTCTTTCTTG
109021 GCCTACATCT AGAATGTAAA CTGATGTACC ATACTAAAAT CGCCTGACCA ACTGTCAACA
109081 ACAACAAATC ACACACACAA AAGATCAAAT TTGAATTGCA TCGTTTACTT AAATTCATTT
109141 GTGTTCCAGC TTTTAATAAG GCAGTTTTTG GTTTATAAAG TAATATTTGC ATTTTAAAAA
109201 TTATGAAAAT GAATATGTCA GTTTGTTTTA TGATTGTTTT TTCTTGACTC TTATACAAGC
109261 GACTCTAACT GGCATAGACA TTTGTTATCC ACAGACAGTA TAGATATGTT AGAGATGCCA
109321 ATGGACTTGG TCTATGCCAA GGTGACTACT CACAAGCTCT GGGCCAGCT GAAGGTCAAG
109381 TATTTTTTTT CCAGTTATAG ATGTGCTGGA TCTGATGTAT AGCGCTTGAC TTTTATATT
109441 TTCTTTATCT GTAGGAAACA AATGTGTTGG AGGTACTGGG TCTGACGAAT AGCATAAAAG
109501 AATAAAGTTA CATTACTGTC TGAGGATCAG ATGGACAGGG GGTGGTAGCT CAGTCCAGCT
109561 ATTTTCCACT CCCTCACTTA CATTCTTTGC CCCCTCCTCA ACAGAACAAG GATTCTGCTG
109621 TAACTCTTCA TTGACAGTTG ATATTTAAAA ATTAACGAAT GGATGAAATT CTCATTGTG
109681 AAAGAAAATT TATTGAGCAT TTTGTATTTG TGAGTAGTGC AAACATTTTA ATATTATATT
109741 AAGAATCTAT TGTTTTGTAT TAGAGGAGTA ATTAAGGAGA GATTGGAGAC AAAAAGGGGG
109801 TGTTGTTTGC AGAATATACC ATCCAAAAAT AGACCACTGT GGGATCAGGA TTCTTTTGAG
109861 CTAAAGGCAC TTCAAAAACA GCATTCAAGA AGGGAATTCT TCTAAACTTT TCTTTCTGAA
109921 AACAGGAGAT AAAAGTTCCA ATGTGAAAAA TGCTCTGCTT GTACCAGGTG AAAAGACATA
109981 TTCTTCAGCC CAGAGGCATA GATGAGATAA TTCTGCACAA ACACAGCAGG GAGTCATAGC
110041 CGAGAGACTT CTATACACAA ACAAACCTTG TTAATAAAT CATATATTCC TTTAATCTCC
110101 TCATATGGTT TACTTTCCCA CAATTGCCTC TCTTTAACTT AATGTGAAAG CATTTAGCTT

```

Figure 9 (Page 34 of 74)

123/162

110161	TTGCCATTTT	TTTGGGGCTT	CACTTTTTTTA	TGAGGGTTCT	CCTGTCCCAT	AAAATTTACA
110221	TTAAATACAT	TTGTATGCTT	TCATTCTGCT	AATCTGTTTT	ATGGCAAATG	AATTATCAGG
110281	TCCAGCTGGA	GACCCTAACA	GAGTAGAGGT	AAAAATTTGC	CTCCCTACAA	GATAGAGATT
110341	GTGTGCATTA	AATGTTGTTT	GTTCCCAAGT	GTTTCAGTTT	TCAGGCCTCT	GAGCCGAAGC
110401	TAAGCCATCA	TATCCCCGTG	GAAGTGCACG	TATGCCTCTA	GATGGCCTGA	AGTAACTGAA
110461	GAAACACAAA	AGAAGTGAAA	ATGCCCTGTT	CCTGCCTTAA	CTGATGACAT	TACCTTGTGA
110521	AATTCCCTTCT	CCTGGCTCAT	CCTGACTCAA	AAGCTCCCCC	ACTGAGCACC	TTGTGACCCC
110581	CACCCCTGCC	AGCCAGAGAA	CAACCCCTT	TGACTGTAAT	TTTCCACTAT	CTACCCAAAT
110641	CTTATAAAAC	GGACCCACCC	CATCTCCCTT	CGCTGACTCT	TTTCGGACTC	AGCCCGCCTG
110701	CACCCAGGTA	GAATAAACAG	CCTTGTGCT	CACACAAACC	CTGTTTGATG	GTCTCTTCAC
110761	ACGGACGCGC	CTGAAACAGT	TTAACAGGGT	TTTTCCTGCC	CAGTCACAAC	AAAGTGATGT
110821	TATGCTGCAG	GCTGAAAGTT	ACAGCTAATG	CTGTTGAAGT	CTAAAATCAG	TTTTGGTTTG
110881	TTAGATTTGG	GTGAGATGGC	TAAGATTCTC	AGAGAAAAGAA	GTCAAGTTTG	GGGTGCATTT
110941	TTCAGACTTA	AAAATTTAGC	AGTAGCCCTT	GCAGTTTTTC	CAATAGAAGT	GATTTACGAA
111001	TGTTTTTCAGG	AAATTTAAAA	CAACAGTGAG	AAGCGTGTAT	GGAGAGTTGA	ACTACACTCC
111061	AGACTTGGCT	ATAGGAAAGC	ACGAATGCTG	CTATTGTATT	GCACCTTGGA	AAAGAGAACA
111121	AAGGAATATT	TTCCGACAAT	TTTAACATGT	CACATATGAA	AAGCTAAACG	GAATCTGTCA
111181	ACACCTTGTA	CGTTATTACA	GGCTGTGATT	TTAAAAAAC	AATCCTTACT	AATACATACA
111241	TAGTTGCTGC	TAGCAATATA	GTGTTGGGAG	TAAAAACACG	AAAATGAGAG	TTCAGGACAA
111301	TATCCCAACT	CTGAGCAGAT	TTTTTTAAGT	AGTAACATCT	AAAATTAAC	CATATTATGT
111361	AATATTTATT	TCTTTTCCAC	AGTCTCTTCT	CATGCCTCGT	TCACATTAGC	TAATTTAAAG
111421	TCCCTGAGT	ATCATCATAA	CCCGATTAC	AGATGAAGGC	ACGGTTGCAA	TGAGTATCA
111481	CCCTCTTCTG	AATGAGACAG	TACAGTGTGA	AGGATAGCAA	AACTCCACTC	CCATCCTCTT
111541	AGGGCTCTGG	CTGGACCAGC	AAATTAAT	AATGTAAAAAT	GGATTAACAG	GAGAAAGGTA
111601	TATGCATTTA	TTTAACACAG	GTTTTACGTG	ACACAGGTGC	TCTCATAAGG	TAATGAAAGC
111661	CCAAAAAAG	CAGTTAGCTA	CTTATATAAT	GAATTGGACA	ATTAGTAAAA	TGTAATAATG
111721	CGCTAAAGCA	AAGGGATTTA	GGCTAGAATA	TATAACTGTG	TAGAGAAGCG	CCCAGCAAGG
111781	GCTAGTGCAA	GGTTGTACA	GAATTCTCTT	GGCCTCAGCC	TCCTATCCTT	GAGAAGAATG
111841	TTGCTTTTTT	TAAACTACAG	TGAGAACATC	TTTCATATGA	GAATTTACACC	TACTGCTTCT
111901	AAGAAACAGG	TCAGCTTTCA	AGAAAACATA	AGGCCAGAGT	GATCTTTTCA	CGCCTGCTCT
111961	TTTAAGTACC	TTTGAATAGT	CAATATGTCT	TCAAGCACTT	GAAAGACTTA	AAAAGTTTAC
112021	CACTCCGGCA	TATTAGTGAA	AGCCCTTAAT	ATAAGCCCTT	ATTAAAAATC	TCAGTCGAGG
112081	GTATAAATTC	AGATTCAAAT	AGTAGTGTCT	TAAACGGGAG	GGAAAACTA	AAGGGATTAA
112141	AAAGTGAAAC	TATTGTGTTC	TCCCTCGCAG	TCCTTAGGTC	ACTGCCCTC	GAGGGGCGGA
112201	GCAAAAAAGT	AGGCAGCAAC	GCCTCCTTAT	CCTCGCTCCC	GCTTTCAGTT	CTCAATAAGG
112261	TCCGATGTTT	GTGTATAAAT	GCTCGTGGCT	TGCTTTCTTT	TCGCGTACCT	GGTTTTTGT
112321	GTCAGCTGGT	TAGACATGTC	TGGTCGCGGC	AAAGGCGGTA	AAGGTTTGGG	TAAGGGAGGT
112381	GCTAAGCGTC	ACCGAAAAGT	GCTGCGGGAT	AACATCCAAG	GCATCACCAA	ACCGGCCATT
112441	CGGCGCCTTG	CTAGGCGTGG	TGGGGTTAAG	CGAATTCCG	GTTTGATTTA	TGAGGAGACT
112501	CGTGGCGTTC	TCAAGGTGTT	TCTGGAGAAC	GTGATCCGGG	ACGCCGTGAC	CTACACGGAG
112561	CACGCCAAGC	GCAAGACTGT	CACTGCCATG	GATGTGGTTT	ACGCGCTCAA	GCGTCAAGGA
112621	CGCACTCTGT	ACGGCTTCGG	CGGTTAATCT	TTTCGTCACT	TTTCTTCCAA	TGGCCCTTTT
112681	TAGGGCCGCC	CACTCCCTCT	CAGAAAAGAGC	TGTGATTGTA	TTCTTTCGGA	TGGTAACATC
112741	TCAATGGCTT	TACTCGGCTA	TTCTGCCTAG	TATGTAGAAC	TATTATAAAC	CAGTTGGGAG
112801	AGACCAGGTT	GTTTGGTCTG	AGTGGCTGCT	AAAGCAGAAA	TCAGCTAAGT	AAACGAGGTC
112861	TCCGAGATAA	GTGAGCTATA	AACTTCAATG	CTATAGTTTT	GACATGTCAA	GCAACTTAAC
112921	GTGCAGCGCG	AGTCCGATAA	ATGAGTAGCT	CAGCTTTTTA	GTTTTAAAAA	CGAGTTGTGC
112981	GTTATTTGTA	CGAGAGCCTA	AGATGCTAGC	TGCCTGGAAC	TGAGTAGGTG	GATTAAATG
113041	GGTGTCAGGT	CTGTTTTCCC	AGGCGTATCT	GACTTAACGT	CAGCAAAAGC	TGTACTTTTA
113101	GCTTCCCTGG	TAACACCTGC	CGTCCCTAAC	CGCCCCCTGC	CGGTAGCGCC	AGAAGCCTTT
113161	ACTTCCATTT	CTAGTTGAGC	TTGGCGTCTT	GCTGAGTGAC	GTCACCTCCC	CCTTCTGTGG
113221	AGTAGGACTG	GCGGTTAAAG	CTGCTTTGCT	ATTTTCAGTC	CTCAGGCTGG	AGGCTCCCCCT
113281	AAGCAGGCTG	CCTACGCAGT	TCGTAAATTC	CCACTTAGTA	GACTAAGGGA	GTCTGTTTTA
113341	TAAATAAGGA	CTCAAATTTT	TTCTGACTCC	GAGGTCCGTG	GCAGCAGCTA	TAAGATGGAA

Figure 9 (Page 35 of 74)

124/162

```

113401  GCCCCCTCTG ATGTAAGATT CTCAGATGAC TTGCATCTTC ACTGTACCTG TCAACCCAAT
113461  AGTCTTCTAT TCCTGCCTTA AATTGTAAAT TCCAAAACCTG ATTTAATTGT GAAAGTTTCA
113521  AACTGTACGA CCTAGGAAGT GTCAAAGTTA GGTGACCAGA TTTTGTAGAA TCAGCCAAAT
113581  ATTCAGCATC TTTGATTTAG TAACAAATAT ATTGATGGCT ACTTCAGCAA AAAAAATCAA
113641  CTTTGTTTTC TGGTTACTTT GCTAACAAGC TTCTCCTGAC AGGAGGATAT AGTGAATAGG
113701  CAGTTGAATA AGTGAGTTCG GGTGAGAGGT CTGAGCTGGA GATAAAAAATG TGTGAGTCAT
113761  CAGCAGATAA ATAAATGCTG AGACCAGATG AGATGGCTAA AACTTGAAAC ATAATGTAGT
113821  GCAGCATTGT TTGTAATAGT AAATGAGTGG CAACTGTAAA GTTTTCATCA GAAAGGACTA
113881  GAGTGATCTA TACATCCATA AAATAGAGTA TTTCTCTACA CAGCCCTACT AAAGAATGAG
113941  AAAGCTGTAC TCCACTACAT ACTCTGGTGT ACTCTGGCTC AGTTCTTGGA CTCCTCTTTT
114001  CTTGGCTAAC TCAACTGGCC TCACCACTTA CATGCTCTGT GCTCTGTCAA ATAGTTTGTT
114061  CAACAGAACA CCACGGCCTA GCTGTAAGTG CCACGTTAAC TTCTAGCAAT GCCAAAGCCT
114121  GTGATAGTTG CAGCTTCGGG CTGTTTCTCA TTCCCGGGAT GCCTAACCAC CTCTCCAAAT
114181  TCTATCAGTT TGCTTCCACC CACTTCAAGC TTCAGAACGA AACATAGAGC TTAAGAAATA
114241  TAGGCCCCGGC AAGGTGGCTC ACGCTGTAA TCCCGGCACT TTGGAAAGCT GAGCCTGGTG
114301  GATCACCTGG GGTGAGGGGT TCGAGACCAG CCTGGCCAAT ATTGTGAAAC CCCGTCTCTA
114361  CTAAAAAATA AAAAAAATA GCTGGGCATG GTTGCGGGCG ACTGTAATCC AAGCTACTCG
114421  GGAGGGTGAG ACAGGAGAAT AGCTTGAAC TCGGAGGCAG AAGTTGCAGT GAGTTGAGAT
114481  CGCGCTATTA CACTTAGGCC TGGGAGACAA GAGTGAAACT GTGTCTCTAA ATAAGTGTTC
114541  GCAATTATAA ACCATCTCCC TGACCTTAAA TCTCTAGACT CATATACAAC TGCATATTTC
114601  ATGTATCTAA TTGAATAATG GGCATCTCGA ACTTGTCCAA AATATGTTTA TACGTAAACA
114661  CCAAGTCTGT TCTTCTCTG ATATTTGTCA TGTCAATCAA TAGAACTCCA TTCTTCAAGC
114721  AGCTTGGGCC AGGAATTGTG CAATATTGTT TGTCTGAGC TTCTTACAAC TTTCACCCAA
114781  TGCAGTCAGC TCTGTTGAAA ATCAATCAGA ATACCTTTCA TTGTTTTCTT TGTGTTTCT
114841  CTAGGAGCAA GCTGCCATGG CGGTTTGTCT GAATGACCAC AGTGACCCCA AACTGGTCTT
114901  TGTTTTCACT TTTAATCCCC CTGTCATACA GTTTTTCTCT ATCCAGCATC AACAGTGATC
114961  CTTTTTGAAG GTATTATGTC CACTGTCTGC TGAAAAGATT CCACTGGCTT TCCATCACCT
115021  TCATAATAAA AACCAGCATC CTTATCATAG CCTACAAGTA AGATGACCAA CCATTACAGT
115081  TTGCCTGACT CTCAGGGGTT TCTCAGGGTG TAAGACTTAC AGTGCTGAAA CTTAGAAAAGT
115141  TCCAAGCAAA CTAGGATGAG CTGCTCAACC TACTAGATCT GTACTCTGGC TACCCTCTGA
115201  CCTCATTCTC TTCGCAGTTC TTTCTCTTCA CTGACCTTGC TGTTTCTGGA ATGGACCAAG
115261  CATTTCCAGC ATCAGCACCT TTATATCTAT TCTTTCTCCC TAGAAGGGTC TTGTCTGGA
115321  TATCTGAATG GCTCTAGATC TCATTTTATT CAAGCCTCTC CTCAAATACC AACCTTAAGA
115381  AAGAGACCTC CCATAATCAT CCCTTGTAAT ATAAGCTTTT CTGCTCATT AGCATATATA
115441  TATATAGTTG ACTATCCTCA ATAGCATATA TATATAACAT TTCCCCACCT AGAATTATAT
115501  ATGTAATAAT ATATTTAACA AAAAATACAT ATAAGTAGAT ATATTTTATT TTGTGTTTGT
115561  TCTCTCTCCC CCAACTGGAA TATATTTTTT GAAGGTAGGG ACTTTGTTTT GTCCCAGAAG
115621  TATCCCTAGC ACCTTGAACA GGGCTGACGT TTAACAGGTA GTTTATGGAG GTTTGTTGAA
115681  TGAAAGGATG TGTGAATTTT CTATGTAAGT CTCCAGGCTC TCCACTAAGC CCACCAGAAT
115741  GCTAACACAA TCAATTCCCC ATCTCATTCC TTGACCTGCC ACTGCCTGAA GCAATCAGCG
115801  TGCAGTTTCT CTTTAGAAAA TCTGGGGGAT AGTCTAGGGG TTGCAAATTA AGCAACATTA
115861  TCTTTGTTCT GAACAAGGAC TGCATGAGTG TTAGGACTGA AGAAGGCCCA AGGTGGTGGT
115921  GGGTATGCCT AAGATGAGTA TGACATATCA GCAATGCTAT GAACATAGCA ATGCTATGAA
115981  AGGCCAGGCA AAACGTAACA GGAGCTAGTC GTGGCTTATT GTTACAACGA CTATACCTCC
116041  CATATGGGTA ATCGATATCC ACACACCCCT CTACATTGAC TCTGGAATTC AGGAAAGGGA
116101  ATTAATAATT TCTAACTTAT GTACCCCAAT GATTTCAACA ATATCTGGCA TATGAGATCA
116161  ATAAATATCT TTAATAATACC AACTAAGAAA GACATAAAAT GACCCACCTC CCATACCAGG
116221  CTCATTTTTG CTCCTCTGAT TCCTGAAACT ATCCAGAATG CAGCTATGAA TTCTCTCCAT
116281  TGTCAGTTTT AAATTAAGCC AAGCTGGGTA CTTGTGTAAT TCCTCAAGAA ATCCTGGATG
116341  AAAACTGTCA GGTGGAAGAC AGGACCTCAA AATAAAGAGA CATCCATCAC TGAAGCTAAC
116401  ATCGTGAGGC TGAAATCAGT CCTATAACAA TGGTACCAAA AAGAGCACAA TGAGAGGCAT
116461  TTGTGAATAT TTAATCAGAT GAGAGTAAGA TATTTCCCTA TCAGCTAACC TGAAGTTTAC
116521  ATCCCTTTTC CAGCTGAGTT CTGAAGCTAG ATGTACTTAA CTGGAACACA TAACTGCATC
116581  AGGAACATCC TTTAAACTA TGGCTACAAT GGCTTGACTG GACAAACCCC AGGCTTCCAG

```

Figure 9 (Page 36 of 74)

125/162

```

116641 GTTTAGCACA GGTGGCCCTT CACAGACCAA CATTGCCTAT GCTACCAACC TCATGTCCTA
116701 CCACCCTGCT TGCATCATTT CTCTCTCTGC ATATATAAAA ATATATGTGT ATGTATATAA
116761 TCAGCTTTAT TGATATTTAA TATACCACAA AATTTGCCCA CTTTAGGTAC AGTTCAATGA
116821 ATTTTACCGT GTTTTCTTAG TTGTACAACC ATCATCACAA TTTAATTTTCG GAATATTTCT
116881 ATCACCACAA TTTCCATTTT TGCGTAAAGG GGGAAAAAAA AAGGTTAACT GCTGAAGGCC
116941 GCGGTAACAC TGAAAAAGGT GCCTTTTCTC TCTAAAACAG ATTTTAATCT CCCCTGAATT
117001 TAGTGTCTTG GGTATTCCAG GAGTCTGAAT AGGGTTTCAA TTTTCAGGGT CTTTTTAATA
117061 GAGTAAACT GTATTGGTGG CGATAAATTT AGTATTGCTC TCAGTACATG ATTGAGGGAT
117121 ACTTAAATGT CTCTGTGATT TTATTTTATA ATCGCTAAAA GATGGTTTTT TTTTTTCTA
117181 AAACAGGGTT TTTGTTTTTT CTCAATAAGC TTCTTAGCTT CCCCTCCGGC TCCCTGGCTT
117241 GCCTCAGGAA ATATTAGCTC ATCAGTCTTG ATTGGTTGAC AGCTACGAAT GGCCCTCATT
117301 GATTGGGCAG CGCTTCTTTT TCCCTTGGAA ACTAATACAA ATTTTAAACA CTACTTTTTT
117361 TCCACTCTTT CTTCAGAGTT GGAATATCGT TGCTCCCCTA CCCATATGTA GTGAGTGGAG
117421 GGCAAACCTG GAGTTCCCCT AATCTTTTCT TTTTAGGATG TCAGCTCAGT ATCATTTCATC
117481 TTAATTACAC ATTGAGCTTC TTGACTTAAT GTATACAGCT CTTCTTTTGT TTAGTTGGGC
117541 GGCCCTGAAA AGGGCCTTTG GTTCAGAAAT GCAAGCTGTG GAGAAATCAG CAACCTTAAC
117601 CGCCAAAGCC ATAAAGGGTG CGTCCCTGGC GCTTAAGCGC GTAGACCACG TCCATGGCAG
117661 TGACTGTCTT GCGCTTGGCG TGCTCCGTAT AGGTGACAGC GTCACGGATC AGTTTCTCCA
117721 AAAACACCTT GAGCACCCCG CGAGTCTCCT CGTAGATCAG ACCAGAGATC CGCTTCACAC
117781 CGCCACGCGG GGCCAGACGC CGGATGGCCG GCTTGGTGAT GCCCTGGATG TTGTCACGCA
117841 ACACCTTGCG GTGGCGCTTG GCACCCCCCT TACCCAAACC CTTCCCGCCC TTACCACGTC
117901 CAGACATGAC TTCCCAAGAA GTGAACCAAG AGCAAGTGAG AGAATAGGAA ACCGATCTTT
117961 ATATATCTAC GTTACCCCTG CCCCCACCTC CAGCGGACAC AGAGACTGAA AAGCGCGCAG
118021 GCGGGAAATG TGACGCCTAC AGTCCGCTCC TTTAACCCTT CCTCCAAGCC CCAGGAAATG
118081 GCGGGAGCAG CGATTGGGGG AGGGTGGGGA GATGAGGGTG GGACCAAGCA GGCTTGACCA
118141 ATGGCCTTTA TTTTCTTAAC AGAGCTACAG GCTTTGAGGA ACTGGGTTAA GAATTAAATG
118201 TAAACCCATT CTGACTCCAG AATTATTTTA AGTCGAACCT TTTTTTTAAC CGAATCTCTC
118261 TGTCGCCCAG ACTGGAGTAC ATTAGAGCCA TCTCGATTCA CTGAAACCTC TGCCTCTCAG
118321 GTTCAAGTGT TTCTCCTGCC TCAGCCTTCA GAGTGTACCT GGGATTACAA GCGCTCGCCG
118381 TCGCGCCCGG CGTGTTTTTG TATTTTTCTG AGAGACGGGA TTCGGCCATG TTGGCCAGGC
118441 TGATCCCGAA CTCCTGATTT CTGGTAATCC GCCCGCCTCA GCCTCTTAAA GTGCTTGAAT
118501 TACAGGCGTG AGTCACCGCG ACCGGCCGAA ATCGATTGGT TTTGAAGCCT TCAGTAGCAT
118561 TAAAACGAAA AGTGCTCCCA ATGCATTCCC TTTTGTCTTA AATTGGTTTC TTACAGCTAC
118621 TTTACTTGAA AAGGTGGTGG CTCTGAAAAG AGCCTTTGCT TGGACCGTCA GAGAGACCAC
118681 AGTAATCACG CCTCTCTCTC GCGGATGCGG CGGGCGAGCT GGATGTCCTT GGGCATGATA
118741 GTGACGCGCT TGGCGTGGAT GGCGCACAGG TTAGTGTCTT CAAATAGCCC TACCAAGTAG
118801 GCCTCGCACG CCTCCTGCAG AGCCATCACA GCGGAGCTCT GGAAACGCAG GTCTGTTTTA
118861 AAGTCCTGCG CAATCTCGCG CACCAGGCGC TGGAAAGGTA GTTTACGAAT AAGCAGTTCA
118921 GTGGACTTCT GATAACGGCG GATCTCGCGC AGAGCCACGG TGCCCGGCCG GTAGCGGTGG
118981 GGCTTTTTCA CGCCGCCGGT GGCCGGAGCG CTTTTGCGGG CTGCCTTAGT GGCCAACTGT
119041 TTGCGTGGCG CCTTGCCACC AGTAGACTTC CGAGCAGTTT GCTTAGTGCG AGCCATGACG
119101 GAAAAACAGC ACAGCGGAAC ACCCAACACT AGCGCAAATA CGCCCATGAG CTGCTCTATT
119161 TATAGTGTGT AAAGTGCAAT GATTGGATGA TAGAAGACGC TAAATATGAC GTTACACACT
119221 CTGATTGGTC TATCTTTAAG CCAGCAACAA TCGTGCAGTT TCACCGGCTA CTATATTCTA
119281 TTCCAACCTT ACAGATGATT ATTTAAGTGG TATTTTATTA CTACTATTAT TTTATTTTAC
119341 TTTTGCTTTG TTCCCAAGC TGGTCTTAAA CTTGGGCTCA AAAGATCTTC CCGCCTCAGC
119401 ATCCAGAGTA GCTGGGATTA CAGGGGAGCC CCACTGCGCC GGCTTGGACT TTAATTTTTT
119461 AAACCTGTCC TCTTCTACAT CTGGTTTTCA TAACCTGAAG GCTGTGTTTA TTTTCCATAA
119521 AACAAGGCAT TGATTCCAAA GGTATTATAA TTCCCAATT CCGTATAACC TTCAGCTCTT
119581 TAGGAAAAAA AAAAAAAGAG GAATACTGCT CACCTCCTCT CCGGAAATGT
119641 ACCCTTTACG GGAATTTCTG AAACCTTTCA CAAGAATTGG ATTCCTTTGT AATGCTTTAA
119701 TTGACTTAGG AGTGTATTG AAATCTACAA AGCATCTCAA ACATAGTAGG ATTACACTAT
119761 TACTCAGAAA CATTTTCTAT GAGACGTCTT TCTCTTGATT ATGCTCTTTG AATCCTAAAC
119821 TTGCAGCGTT CTGCAGCTTT TGTTTTCTAA AGCCTAGGTG TACTCTGCCA GTCACAAAAT

```

Figure 9 (Page 37 of 74)

126/162

119881	GGCGTTTCTC	CAGCACTGCC	GCCAGGTACC	ACCAGCTGGG	AGTTGTTTCCT	CTTGCGGAGC
119941	AGGAGGTGGA	CTTGGCCCAA	GAGAACTGG	ATAGTGGTTC	GCAAGGAACA	TAATTTAGCA
120001	TTGCCAAGAG	CTAATGCAAT	CATTTTGAAA	ATCTCAAAAC	ACTGAAAAGT	GGATTGTGAC
120061	CTTTTAAAT	TCACAAGAGA	CAGGCCACAT	TCTATCTTTT	GATTGGTTTA	GGCTATTTTC
120121	TTGAACAGCC	ATTTAGAAAG	CAGATCTATC	ATCCTTCATT	TGCATGGAGC	GTTCCCATTT
120181	TATTTGAAAC	CAGTTTAACC	CAATAGAAAA	AAGGGAGGCA	GAACCCATTA	TTTAAAGTGG
120241	AAACTCCTGA	ATCAGATAAT	TAGGAGTATT	TCCTTTTCAA	AAGTTGCGTT	TTTTCAGATA
120301	CCTCGCTTAT	TACACTAAGA	AAGGTTTATA	TCTTTCACAA	AGGGTTTACT	TACAAAAATC
120361	TTCCAATTTT	GTATACCTGT	GTTTCATAAC	TGACTAGCCG	TCAAACCAAG	ATGTAGAGTT
120421	TCCAACCGTT	ATTTTCCAAA	TTTTTAGAAA	TTACGTGAAA	TATTTGAATG	CATGCCTTCT
120481	CAATAAAATG	GGACGTAGGA	AGCACTGGTG	CAGAAGATGG	GTACAATACT	TATCTGGGAC
120541	CACTCCATTA	TTTGGTTGGC	ACGTTGTTTG	AAGAAAAAGG	GGAAAAGCTC	AGGTTACTTA
120601	GCATGGTTCG	GACTTATTTG	AAAAC TACCA	CAGCAGGAGC	GGAAAATAAGA	CCGCATTACC
120661	TCACTCTCTG	CTGTGCTGTG	CTAGGGGGTT	ATCCAGAATA	GGATTGTAGA	AGTGGATGTC
120721	GATTTAATAG	TTTTTTATTCT	TCCCATTAGC	TGAGTCTCTG	ATTGGCAATG	TGAGATCGTT
120781	TTAGCTTATT	GATACCTTGA	AATGCACTTA	ACAGCCACAA	ACAAGTTAAA	GGGTTGTTAC
120841	CATAAAATCT	TATCCCCAGG	GTGTGCTTGC	ATTTATCACC	CGTGTGTTGCT	TTCACTACTAA
120901	GTGGAGTTAA	CTCCCCAGCA	GAATGCCTGT	CAGGGAACCG	GTTTCGTGGA	CCCAGCATTT
120961	AACGCCTTTC	GCAGGCTTGT	GAGGCCCATG	AATATTTGTT	GAATAAAAGA	ATGAGTTGAC
121021	CATGTCATGG	TGCGCTGATT	GCGTGTGCTG	ACATGGAACA	CAGGTTGTAA	ACCTTAATAC
121081	CAATTTGGGG	CATGTTGTAT	GGATGAAAAG	GGCATTGGAA	ATTCTTGAAG	TGCATCCAC
121141	ATTGGACTGT	GGAAATAAGT	TGCAAGTGCA	GAAACGTTTC	CACACTTGCA	GTTTGAGTAT
121201	TAATTGCAGC	GTTTGTGAAT	TCTGGTGTG	TCTACGATT	ATTCTTGTGTT	GACGTGAAAG
121261	GTATTGCGGA	GACACATCGC	TCTAAAACAT	TGCCAGAAAA	TGTAATAGAG	TTGATGACAA
121321	CTGGCCCTAA	CACGGCCTAA	AAC TCGCACT	TTTCTCTCCC	TCCGCAACTA	TTCAAAACAC
121381	TGTATTTTAC	ATTTCTTGCA	AATTA AAAAC	TAACATCTCT	GGCAACGGAC	CTCTAAAAAT
121441	TTCTAATAAA	ACTCCTCGGA	TGCTTGTGGC	ACTGCATTTG	TAAACCGCCC	CCTCTCAACC
121501	TACTCCCTAA	AAAAGAGCTG	CTTTTGTAGA	GAGAAGCGGT	ACCCTCTGAT	GTTACTGGGC
121561	GGCAGTCTGC	CTACAATTTT	CTTCACAATG	AGGCAACCAG	AGCGGCTTTT	TCTGTGTGTT
121621	TGCTTGCCTT	GAGGGGAGCA	GGACCATAGG	CCCTAGAGGC	CCCCAGCTGC	CTTCTGAGAC
121681	TGGGCGAAAC	CCTCGGCAGC	GCGCAGGGGG	CGCTAGGGCG	CGAGGGGCGG	GCACTGACGG
121741	GCACCAATCA	CGGCGCAGTC	CCACCCTATA	AATAGGCTGC	GTTGGGGCCT	TTTTTTCGCA
121801	TCCTGCTTCG	TCAGGTTTAT	ACCACTTTAT	TTGGTGTGCT	GTGTTAGTCA	CCATGTCTGA
121861	AACAGTGCCT	CCCGCCCCCG	CCGCTTCTGC	TGCTCCTGAG	AAACCTTTAG	CTGGCAAGAA
121921	GGCAAAGAAA	CCTGCTAAGG	CTGCAGCAGC	CTCCAAGAAA	AAACCCGCTG	GCCCTTCCGT
121981	GTCAGAGCTG	ATCGTGCAGG	CTGCTTCCTC	CTCTAAGGAG	CGTGGTGGTG	TGTCGTTGGC
122041	AGCTCTTAAA	AAGGCGCTGG	CGGCCGAGG	CTACGACGTG	GAGAAGAACA	ACAGCCGCAT
122101	TAAGCTGGGC	ATTAAGAGCC	TGGTAAGCAA	GGGAACGTTG	GTGCAGACAA	AGGGTACCGG
122161	AGCCTCGGGT	TCCTTCAAGC	TCAACAAGAA	GGCGTCCTCC	GTGGAAACCA	AGCCCGGCGC
122221	CTCAAAGGTG	GCTACAAAAA	CTAAGGCAAC	GGGTGCATCT	AAAAAGCTCA	AAAAGGCCAC
122281	GGGGGCTAGC	AAAAAGAGCG	TCAAGACTCC	GAAAAAGGCT	AAAAAGCCTG	CGGCAACAAG
122341	GAAATCCTCC	AAGAATCCAA	AAAAACCCAA	AACTGTAAAG	CCCAAGAAAG	TAGCTAAAAG
122401	CCCTGCTAAA	GCTAAGGCTG	TAAAACCCAA	GGCGGCCAAG	GCTAGGGTGA	CGAAGCCAAA
122461	GACTGCCAAA	CCCAAGAAAG	CGGCACCCAA	GAAAAAGTAA	ATTCAAGTTAG	AAGTTTCTTC
122521	TAGTAACCCA	ACGGCTCTTT	TAAGAGCCAC	CTACGCATTT	CAGGAAAAGA	GCTGTAGTAC
122581	ACAGATGAAA	TCCCCCAAGC	AAATGCAACA	CGCCCTCAAT	TATATTAGAA	TCACTTGGAG
122641	AGTCGATAGA	ACTTTAACAT	AGCCTCATCT	AGTAAGAATT	TACTACTCAA	TCTATCAAAG
122701	ATAGCAAGGT	GAATTCAAAT	GCACCGAGTT	AAAATCGAGT	TTTAAAGTCA	CCTGGGTTTC
122761	GGTAGCCGGA	AGTCCCGCGT	CTCACGACTC	CAAGCTAATT	AGTCATAACC	GTATTGAACC
122821	AAGGTTGAAG	CCCAGTCCCA	GGCTTGAGGC	TTTTTATTAT	ACAAGGTTAA	AGTGGGGATA
122881	TTGCGTTTTG	GGGTCAATAT	TGCTAAAGTA	GCATTTTCCG	AAATTGGGTG	GTCTTAAGAA
122941	ATGCTTCTGG	GATAGTTGGC	AAAATATATG	GCTTAACCAC	GCCCTCTCCA	CAGGAGTGGC
123001	TAGCGAGCTG	TCTGTCTTGG	GGAAGGACGG	TGACCCCTGCT	GGCGTGGCTG	GCGCCACGCT
123061	TGGCGTCTCT	TGAAAGCCCC	GCCAGGTAGG	CCTAGCTCGC	TTGCTTTCTG	CAGCGCCATC

Figure 9 (Page 38 of 74)

127/162

```

123121 ATGACAAAGC TTTGAAACGC AAAATGCTTT CTTTGTGCAG CGCCTTACCA TGGGTGCACT
123181 TACGGGCTGT CGACTTGGTT TAGGCCCTTG TCAGGACAAA GGAGCTTAGT TTGTTGGAGT
123241 TTTAGAGCTG CAACCCAAAA TCCCTTGCTC GGTTCCTCTG TTTTGTAGAA CGGAAGCGCC
123301 CTGATTGGAT ATTTGAAAAT TACTGTGCTT AACTGGATCG TGTTTCATCA ATCGTGCAGG
123361 ATTTTCAACC CTGGTGGAGC CCACACATTC AAAACTGAAG ATCCTTTTCT CAGAACTGCC
123421 CCTTTAAGCT TTTGCAATTT TAATTCTGGG GGTCAGATTT TAATAATTGG ACTTTTTTGT
123481 TTACATCTGA CAAGAGTATA TGATGAGCCA AGTTTACTCA CTTTACTTTA GTGCAGTTCA
123541 ATTCTAAAAA TTTATTTTTG CGTGTGTGCA TATGAGTTAA TAATCAGTTG TATTTTTCAA
123601 ACGGTCTTTT TTCAATTGTT TTGCTTAGCT CCTTCCATCG TCTAAAGTCA GGGATACAGG
123661 CACATCACAT CCCTGTTCCC CCTTCCTCAA ACTAATATGT AGCTACCTAG GTTTATCCTT
123721 TAAAACAAAA ATTCTCACCT ATTTTGTGTA GAAATATACA TGTTTTTCTT TGAACATAAGT
123781 ATTTTACATA CACCTATCTA TATACATGCA TACTTGTGGT TTTGTTTTTT TAAAAAATAA
123841 AAAAAAATAA CACGTTATCT TTTGAGACTG GGTCTCAGTC TGTTGCCAG ACTGGACTGC
123901 AGTGGCATAA TCACAGCACA CTGTAACCTC CAACTCCTGG GCTCAGGCTA TCCTGCAGCC
123961 TCAGCATCCG GAGTAGCTGG GATTGCATGC ACGCACCACC AAGCCGGGCT TTTTGTTTTT
124021 ATTTTTTGTG GAGACAGTCA CACCATGTTG TCCAAGCTGG TCTAGAAATG GCCTCAAGTG
124081 ATCATCGACC TCCCAAAGTG TTGGGATTAC GGTCACTGTG CCTGGCCTTG TATGCATAAT
124141 TGTTTTGTCT TTTGATTAGG GTTATTAATT TAAAAAATAA AGCCTGGACG CAGTGGCTCA
124201 CATCTGTAAT CCCAGCACTT TAGGAAGCCG GATGGGCAGA TTACTTGAGC TCAGGAGTTC
124261 AAGACCAGCC TGCGCAACAT GGTGAAATCC CATCTTGACA AAAAATACAA AAAATTAGCA
124321 AGGCCCAGTG GCACGCACCT ATAGTCCCAG CTACTTGGGA GGCTGGGGTG GGAAGATGAC
124381 TGGAACCTGG GAGGTAGAGG CTGCAGTGAG CAGAGATCGT GCCACTGCAC TCAAGCCTAG
124441 GTGACAGAAT GAGACCCAGT CTCAAAACAA AAATAATAAA AATTTTTTAC AACGATGTTA
124501 TATACACTTC TGCATGTTGC TTTTCTCTTA ACCAAACTTT TCTAAAACCC TGTATGAAA
124561 AAAGAAATCC TTCACATGGA ATAGCATAAG TTATTCATCC ATTTCTTATT GATAAGCATT
124621 GATGTTTCCA GTTACCACTG CTGAACATGG TGCAATTGAA TAGAATTCCA GGGCTGAGAT
124681 TGCTAGGTTT TAGGTTGTAT TTTATTATTT TATTTATTTA TTTATTTATT TAGACAGAGT
124741 CTTACTCTGT CACCCATGGT GGAGTACAGT GCCATGACCT CAGTTGCAAC CTTTGCCTCC
124801 TGAGTTCAAG CGATTCTCAT GCCTCCGGTC TCCCAGAGTAG CTGGGATTAC AGGCACCTGC
124861 CACCAGGCCT GGCTAATTTT TGTATTTTTA GGAGAGATGG GGTTTCACCA TGTTGGCCAG
124921 ACTGGTCTCA AACTCCTGGC CTCAAGTGAT CTGGCCACCT CGGCCTCCCG AAGTGCTGGG
124981 ATTACAGGTG TGAGCCATGG CTCCAGACCT GGACTTTGTC TTCTGTTTCA TCAGTCCTTC
125041 TGTTGGTTCA AGCACAGTAT CACACTGAAG ACTGATGATT CTATATAAAT ATGGTAAAGA
125101 CTGTACACCC TAACTGTTCT TATTTTTTAA TTTTAAGGCA ATTTTAGATT CCAGCTTTCC
125161 AAAGAATTGT GGAATGCTTA GAGCTAGAGA AGCCTTGGA GTCATTTAGT TTTTGTTTTT
125221 TCAGAGAAAA TTCTGTAGAG ACTCTGTCCT GCTCTCACTG AATACCATCC CATAGTACCC
125281 CCCAACAGCT TTAAAGGGCA ATAATACCTT ATGGACAGTA TGCTTTTCCT CAAATATATT
125341 CTAAGCCATG GTCAATGCAA AAGAGTGAGA AGGAAAGTAG AATAAGTTAT CTAAGAATCA
125401 GTGGGTGCTC TCTTTAAACT GATTTATCAC TCCCCCTTCC AAACCTCTCT GAAGGTCAC
125461 CTGCCCTCCCT TTCTACATAA GAACTCCTAA CTCCAAGGGA GGAAGGTAAG TTATTCCTAT
125521 TCCTTGCTTA GAAAAAGAGA AAATAGGTTT GGTAAGCATC CGCTTTCTGC TACCATTCTC
125581 TGTGTTTCTG TGTTTTTTAT AGGATCATTC AATTATTGGT TGGCTCTTGA GAGGGAATGC
125641 AAGGTTCAAG GACACAAGCC TAGATCTTGC CTGTATAGAA CCTCATGATG TTATGCTTCT
125701 CTAAAATGAG GCCTGGAGGA GACATGTTGA AAGTGACCCA TAAATCTGCA GTATCTCATG
125761 TCTCTCAATG GGGACAAGGA GTACCATGGG AAATAGCATT AGGTCAATGA CAGTAACAAC
125821 TCCCAGGTGA GTTGATTAT TCTTTTATTT ATAAAGTTGT TAATATGCTA CATAGTCCCT
125881 AATTTTGCCA CAAATAGTCA TTATTTAAT TTCATATTTT ACTATTGATA AATGAAGGAA
125941 AAAATGAGTA GCAGTTAAGC AGTCCATAAA CCTACATATA AAGCAAATTG GAGATTTTAA
126001 AATTGATTCT GGATGCTTAA AATCCTTCTC ATTGAAAAAA AATTTCTGAT TAGAAGATTT
126061 CAACATTCTT TAAACTGAGA AGCATAACAT ATAAACAGAA AACCACAGCA AAACAAAAAT
126121 GCAAAGCTCA ATAAATGAAC ACAAGTGAA CACCATAATA ATTGCCACAC AAGTAAAAAA
126181 ACAGAAAATC AGCCAACCCCT CCCAGAGCTG CCTGATGCTT GCTTCCAGTC ACATTATCAC
126241 TCCATCTGCC CTAAACATAA CCCCTATTTT GATTTCCAAT GCTGTAATTT AGTATGCCTG
126301 TTTTGTAAAC ATATAAAATG GAAATAAAAC AAATGTAATC CTATGTACCT GACATATTTT

```

Figure 9 (Page 39 of 74)

128/162

126361	ACTCCAGAAC	ATTAGGTTTG	AATAGATTCA	TCTGTGTTGC	TGTGTATAAC	TTTAATTCAT
126421	TTTTATTGTT	ATGTAATATT	CCATGTTATG	AGTGCAACAA	TTTAGGTGTC	TACTGTTGAT
126481	GCATATTTGC	TTCCCTTTTT	CAGCTAATAT	AAACAATACC	GTGAATATTC	CTGTGTATGT
126541	GTCTTGGTAT	ATATAGGAAT	ACATATTTTG	TTTGTATACC	TAGGAGAGGA	ATTGTTGGGT
126601	CAAATGCTAA	ACTCTTTTTG	AAAGTGGTGA	TATTAGGTTT	ACATGCGATG	AAATGAAAAT
126661	TAAACCACAC	GTTATAAACA	GCATGGATGA	ACCTCACAAA	CCTAATGTTG	ATGGAATCTA
126721	GCTGGGAATT	CCTGTTCTTC	CATATACTTC	CCAATATTTT	TTTCCAATTA	AAATTGTTAA
126781	TCTTTTGAAG	ATGTTATCCA	TTGTGGCAGA	TGTGCAGTAT	TATCTCATT	TGGTTTTATT
126841	TTACATCTTT	TGCCCCATTT	TTCTTAATTG	GATTGTATAT	CAGTCGACTT	GGGCTGCCAT
126901	AACAAAAATA	CTAGACTAGG	TAGCTTGAAC	AAAAGGAATT	TATTACCTCA	CAGTTCTAAA
126961	GGCCAGGCCA	GAAATCCTAA	ATTGAGGTGC	CAAGAGATT	AGTTTCTAGT	GAGGGCTCTC
127021	TTATTGACCT	GAAGATAGTT	GCTGTCTTAG	ATTGTTTGGT	GCTGAACAGA	ATACCAGAGA
127081	CCAAATAATT	TATAAGAAT	ACAGATTAT	TTCTTACAAT	TCTGGTGGCT	ATAAAGCCTA
127141	TGGTCGAGGG	GCCCACCTCT	GGCAAGGGCC	TTCTTACTGT	TATGGCAGAT	GTGAGATGTC
127201	ATCTCATATT	CAAACCACAG	CAGTCGCCTT	TTGTGTCCTC	ATGTGGCCTC	TTCATATGCC
127261	CATAAATGA	CCTCATGTCT	CTTCTTTTTC	TTATAAGGAC	ACCAGATCTA	TCAGACTACT
127321	GGCCTACTCT	TATGACCTCA	TTTAACCTTA	AATATCTCCA	TAAAGTCCCA	AAATCCCTAT
127381	CTCCAAATAT	AGGCACATTG	GGTGTAGAG	TTCAACATC	AATTTTGGGG	GAACACAATT
127441	TAGGCCAAAA	AGATTGTGTT	TTTCTTGT	GTTTAAAGAT	AGCTGTCTTT	TTGTCTTTTT
127501	TGTCCTTTCT	TTTTTTTTGA	GGTGGACTCT	TGCTGTGTCA	CCCGGGTTGG	AGTGCAGTGG
127561	CGCTGTCTCA	GCTCACTGCA	ACCTCCACCT	CCTGGGTTCA	AGAAATTCCT	CTCCTCCCAA
127621	GTAGCTGGGA	CTACAGGTGC	ATACCACCGC	GCCCTGCTAA	TTTTTGTATT	TTGTATAGAG
127681	ACGGGGTTTC	ACCATGTTGG	CCAGGCTGGT	CTCAAACTCC	TGACCTCAGG	TGATCCACCT
127741	GCCTCGGCCT	CCCAAAATGC	TGAGATTACA	GGTGTGAGCC	ACCAAACTTG	GCCTGTCTTT
127801	TCTGTTTTAA	GTTTTTAAAT	TTTGCTCACG	AACCCCTTTAT	CCATTTTATG	TGTTGCAGGT
127861	ATTTCTCTCTG	TAACTTGTCT	TCACTCTGTC	AGAGGCTGGA	GTGCAGTGGC	ACAATCACAG
127921	CTCACTGCAG	CCTCCACCTC	CCAGGATCAA	GCGATCCTCC	CATCTTATCC	TCCTTAGTAG
127981	GTGGGACTAC	ATGTGCAGGC	CACCATGCCC	AGCTAATCTT	TGTATTTTTT	TGTAGAGATG
128041	GTGCTGTTGC	CCAAGTTGGT	CTCAAACTCC	TGAGCTCAAG	CAATCCATCA	ACCTTGGCCT
128101	CCCAAAGTGT	TGGGACTAGA	GGTGTGAGCC	ACCACTGCAC	CCAGCCAATG	ATATCTCATG
128161	ATGCATTAAA	GTCATTAATT	TAGTGTACTC	AAATTAAGCA	CACTGCCCTT	TTATGCACAA
128221	CCTTTTTTGT	ATCTTATTTA	AAAAATCATT	TTCTATTTCA	AGGTCATGAA	GATCTTATTT
128281	TATAATACCT	TCTTGTGAAA	TTAGTTCTCA	AGACTACCCT	CACTTCTAAC	ACCAATTATA
128341	AGTTGGGAGG	TCTGTGGTTC	CCAATCAACC	TTAGGTTAGT	AATTTGCTAA	AAGGACTCAC
128401	AGAACTTGCT	GAAGCTGTTA	GCCTCATGGT	TACAATTTAT	TATAGGATAT	ATAGCTTATT
128461	ATGTCATTCC	AATGCAATGT	AAAATTATAC	AACTACTTTT	AAAAAGATTT	TAGCATTTGA
128521	CCCAACAATT	TCACTCTGAG	GTATACAAAC	AGCAGATATG	TGTGCACATA	TATACCAAGA
128581	CACATACACA	GCAAAATTCA	TTGTTTGTA	TAGTTGAAAA	GGGGAACAA	CTCAAGGAAT
128641	AAAGATTAAA	ATCAGCTGAG	AAAAGAAACA	CACAAGGCAG	TATTATGGAT	CGAATTGTAT
128701	GCAGATCTCC	CTTGCCCCCA	GAAGATATGT	TTAAAGTCCC	AACTCCCAGT	ACCTCAGAAT
128761	TGTGGCCTTA	TTTGAAATA	GGATAGTTGC	AGATATAATT	AGTTAAGATG	AGGTTATAGT
128821	ACAGTATGAT	GGGCTGGTGA	CTTAGAAGAA	GATGATATATA	TATATTTTTT	AATAGAACTA
128881	GTATTCTTCT	AAGGTGGTCA	CGTGAAGACA	GACACACACA	GGCAGAGACT	GCGGTTATGC
128941	AGCTGCAGGT	CAAGGAATGT	CAAAGGTTGC	CAGCAAGTAC	GAGAAGCTAG	GAAGAGTCAA
129001	GGAAGGATTT	TCCTACAGGC	TTCACTGGAA	GCATAGATCT	AATGATACCT	TCATGTCAGA
129061	TTTCTAGCTT	CCAGAACTAC	AAGAGAATAT	ATTTGTTGTT	TTAAGCCACC	CTAGCTTCTA
129121	GCTCTTTGTT	ACAGCAGCCC	TAGGAAACTA	ATATAGGCAC	AATCCAGGCA	AGTTCCAAAT
129181	ATGAGCTTCC	AGTTGTCTTC	TCCAGTAAT	ATGAACAGTA	TTACTTTCCC	AGCATTAATG
129241	TGTGACAATA	CACATGACGT	ACAGAGCAGT	CCCCACTTAT	GCACAAAACA	TATGTTCCAG
129301	GACCTCCAGT	GGATGTCTGA	AACCATGGAT	AGTACTGAAC	TCTATATAGC	TGTTTTTTCC
129361	TATACAGACA	CAGCTATGAT	AAGGCTTAAT	TTATAAATTA	GGCACAGTAA	GAGATTAATA
129421	ACAATAAATT	AGAATAATTG	TTAAGAATAT	ACTGTATAAA	AGTTAGGTGA	ATGTTTATTT
129481	CTGAAATTTA	CCGTTTATTA	TTTTTGGACT	GCAGTAGACC	ACAGGAACTA	AAACCATGTA
129541	GAAACCGTAT	ACAAGAGAAC	TGTATTTTAC	CCGAGCCTCA	GTGTGCAGTT	TTAATGGCCT

Figure 9 (Page 40 of 74)

129/162

```

129601 GCCATGGTTG ACTGCTCACA TGGCCGATCT TTTAGTCTAC CTCCACAGGT AGAGCTGATA
129661 CTGTGTGGCT CAAAGTTCCT ATTATAAATC ACATTGTTGA CTGTGTGGTG GTCAAAACCT
129721 CCAGGTAAAC AAAGACACAC TTATCAGTGA GAACATTTCA AGGGTCTAAA ATTCTCTCC
129781 CAGTAGCTGA GGGCAAAGGC TAGACCTCTT TTTGGGTAAG ATAAATTTTT TACCATATAC
129841 TTTATTTTGC TTTTCATGTT TAACCTTATT TTGCTTTTCA TGTTAGTTCC CCTGGAATTG
129901 TTTTTTGTGT ATAGTGTGAA GTAGGGGGTC AAGTTTCTTT TTTTTTCCTT TTTGTTCTTT
129961 TTCTGTTTAA AAGGCTATAC AATTGTCCCA TGCCATTTAT TTACAAGAGT CCTTTCACCA
130021 TTGTTGTATG GTGCCACTTT AGATGTAAAT CAATGTCCAT ATTTGTTTGA GCCTGTTCCA
130081 TTCGTTTGTC TATTTTGGGA CAACACTGCC CTGATTATTG TCATTTTATC AGTTTGTGATA
130141 TTTAATAAAG CAACAGATTT GTTTATTTTG GGCCCTTGGA TTTGTGTATT AAATTTGAAC
130201 CCTGTTTGTC AATTTCTATA ATAAAGCTTA TTGGGAATCT GATTAGGATT ACAATGGTTT
130261 TGTAGCTCAG TTTGGGGACA ATTAATACCT TTAATATATT GACCGCTTCA ACTGTAAATA
130321 TACTCCTCCA TTATTTAGTT TTCCTGTTTA ATTTATCTGA GTAATACATT ATAGTTTCT
130381 TCGTAGAAGT CAGATACGTA GAAAATTCAG AGCCCAAGTG CAATAGCTCA TGTCTGTAAT
130441 ACCAGCACTT TGGGAGGCCG ATGTGGGTGG ATCACCTGAG GTCAGGAGTT TGAGACCAGA
130501 CTGGCCAACA TGGTGAAACC TCATCTCTAG TAAAAATACA AAAATTAGCT GGGTGTGGTG
130561 GCGGGCACCT GTAATCCCAG CTAATCAGGA GACTGAGGCA GGAGAATCGC TTGAACCCAG
130621 GAGGCAGAGG TTGCAGTGAG CCAAGTTCCT GTCACTGCAC CCCACCCTGG GCGACAGAGC
130681 GAGACTTCGT CTCAAAAAAA CAAAAAAG AACTTCAAA TAATCAATGT AGATAATTCA
130741 AATAACTAAA AAATGAACAG TTATTAATAAT ATCAGGATAT AAAAGCAAAA AATCAATAA
130801 CCTCCATATA TACAAAATGG CCAGTTAGAG AAAAAAAAAA GAATAGGCGA GACTTAAAAA
130861 GGCTGGGAAT CTCCCTGAAA ATCTTTGAGA GCCTTGGCCC TGCCCTCAGG GATTTCTCTG
130921 GCTTCATGCC CAGATATGGG TACAGTTCCT TGTTTAAAAA AATTTTGCTC CATCAATCAA
130981 CAAGGGGCTC CTTCTCAGA GCACAAGGAC CTCCATAACA CCGGACACTA GATGTCTAAG
131041 GGACACCTCT TAAGGAAGTT AGACTTCCAA AGAATGGTGT TTCCTCTGTC CCCAACTCT
131101 GGAACCTACA GCACAACCTG TCCTTGGAGT TCGGTTTCAA ATCTACAAGG CTGTCATGGA
131161 GGTTGCAGAC CAAGTCCGTG GCCTCAGTGT CCGGATGTAC GGTGGCCTTG GCACCTGAAT
131221 GTGAGAACAT GACCTCCCTG AAACCACCAC AAGTATTGTT TCATGTTATG TATGTTTTTT
131281 CTTATCTGAA ATTCCTTTTC TTTAAAAATT CAAATTACAT ATTTTTCAG CCCCTGAACA
131341 AGCTTCATGA GCATTTATTG AACCACAGC TTTTAAACC TACTGAACAC TTTGCTCTAT
131401 GTTGTCATTC ACTATCCACC AATTATTTAA TTATTGATCA ATATTGTTTC CTTAGTGTTG
131461 GGATCATTTA TGCATGTATT TCTTTTATAT TGCATATTTT ATATTTCTGC ATTACAGTTA
131521 TTACATATTA CTTTTGCTAC AGTAATAGTT CAGAAGTGTA CATCCAAAT TTAGCTGTGA
131581 AGTGGATGGA CTGAGGCAGA ACTGGAGGCA AGAAAATGTC ACAGTAATTC TAAAAAGAT
131641 GATGTACAAT TAGAGCAAGA GAGTAGCACT GAAATTGAAG AAAAATAGAT GCGTTTGAGA
131701 GAAAATTAGG AGGTAGAATC AACAGATTAG ATGTAGGGAT GAGAAGGGTC AAAGATGACA
131761 CTAGGGTTTT TAACTGGAGC AAGTAGGTAG ACAGAACATT TCTTCCTGAA AGGGCAGGTC
131821 AGATCATGTG TTGTCTCAA GGCATGAAG AGTAGAAAGC CTGGGACAGA TCCTGAGATG
131881 ACCAATACCC ATGGTGCAGG GAGAGGGAGG GAGATCTGCT AAAAAGACTG CAAATGTCAG
131941 GATAGTAGAA AATCATGAGT GTGTGATGTC CTGGAAGTTG AGACAGTATC ACATTTGAGA
132001 ACATTTAAAT TGGTAACTCT GACAAAACCT GGAGGCCAAC TGTGAATGCC CATGAGAGTG
132061 AGAAGCTCCC ACACTTTTGT GGGCATCAGA AAGCCCACCA GGTTCTTGCA GTGAAGATCT
132121 GAGAAGGATC CTCTTGTTGG TTTGGCAGGG AGAGAAGAAT TATTATGAAA TACACCCAG
132181 AACCTTCTTC AAAACAAAGG CCTACTCTCA AGGGGAAAAC ATTTTGCCAG AGTCTTATCC
132241 CAGCTGGGAG AAGGTAATTC TTCCCACTGC AGCCTCATCT AGGCTTTCTG TCTCACTTAA
132301 GGGAAGAAAA TTAGTCAACA GGGATCAGAG CTTTCATGAA ATAAATTGGA AATGGTGCAG
132361 CCAGGAAAGG AGCAAAGGTC TGAGGAGGAG GAGAAGGAGG AAGAGGAGTT GTATCATTAT
132421 AAATACTTGA GGAAGAGGAG GAGAAGGAGG AGGAGGAGGA GTTGATCAT TATAAACACT
132481 TGAGGAAGAG GAGGAGGAGA AGGAGGAGGA GGAGTTGTAT CATTATAAAC ACTTGAGGAA
132541 GAGGAGGAGG AGAAGGAGGA GGAGGAGGAG TTGTATCATT ATAAACACTT GTGACGGTCC
132601 CAGCCCCAAG ATATAGGCAT GCTAATAAAC TGAGGCTTAA CACTTTGACT ACAGAATGCT
132661 GCTTCTCCCT AACACCATCA AGGCTCCAAC TGAATAACAA TGAATTATGA ATGAAAGAGC
132721 TGTAAGGAGA GACAAAAGTT AGAATGAGAC AAGTATTGTT ATCTAGAGAT GCCAAGAAGG
132781 CAAGGAAGAT AACTAAAAAG GCACTCTGGA TTTAGAAATA GGAAGTCATT AGTGACCTTG

```

Figure 9 (Page 41 of 74)

130/162

```

132841 TAAATAATGG AGCCAGAGGA ATACCAAGGG CAGAAGCCTC ACTATAGTGT GTTGCACCTG
132901 TCAGAGGTCA GGAGGTGTAA CTGACTCTCC CACAGTGTGG CTTTGGGAAGA GAGAAGTCAG
132961 CAGCTGCATG GAGATTGGG AGAGGGAAAG CTTTTTTTTT TTTTTTTTAA TTGGAAAAGA
133021 CTGAGCTATG TGTAATAGA ATAAGACAGG AAGAGTGTAG ACACAGGAAA GAGGGCAGAC
133081 AAAAAAAGT GCACAGTTAT CTAAGGGAAA CAATGGGATC AAGCTGCAAG TATATAAACT
133141 TGTCTTGATA GAAGAATCCT TGATCTGGTT TATTCAGTGT TTGGTCCAAA CCCACATCCC
133201 TGTTCTGCCT GTCTCTGACT TGCTCTGTGC CCCAGAAGCC CAGCTTCTAC AGATAGCATT
133261 AGCTGGGCAG CCCTGCCCCTC TTGCAACAGC TGGATTGGC CAGTGATCAG CCCAGCAGGA
133321 ATGTAGATGG CAAAGGAGAG AGAGGTTAGT GTACTTATTC CCTGCATCAC CCCCTGCTT
133381 GGTGGGCAGC TCTTCCCTCCA CAGTCCCAGC TCTGGCCTAG CTCTGGTTAC AGGTTCCCTC
133441 CCATTGCCTC TTCAGATTTA AAGGTGTGTC TGTGAGGTA TAACTGGGAG CTAGAAATTG
133501 CACTGAAATT GAACAAAGAA TTTTATGGGA ATGGTTGTTA ACTAGTTATA AGAGGACTGA
133561 AAATGGAAAA GTGGAACAAA CGTATCAGAG ATAGTAATGA CAGAAAGCAA CTACCACCTC
133621 CAGGTTTAGG AGAACAAGGA AAAGATTCTT TGAAGAGATC CCCAGAAGCTG GGACCTCTGA
133681 GGAGTGTATG CTGGACCACT GATGATGATA TGTCTGTAGA TAGAGGCATG ATGAGGCTGA
133741 TTTTAGGAGC ATGGAAGATC TCCAACTGAG AGCCAACTGC TGTTACTGGA TTCAACTGCC
133801 ACTGCCAGGT TGAAGAACCC ATTCTGTGAG GATGTCAACA AACAAAGTGG GAAATCTTTT
133861 CACATCCCTC CAGCCCTCTA GTCTTCTCC AGTGCTTCT ATTGGTAGGG TTTGGGGAGG
133921 TGGCTAGCAA AGCGGTATTG GAAAAGATAG AAGAGACTAA ATCTTCATAA CCAGCACAGG
133981 GTGACACTGG ATCACTACTG TTGCTGATCT TGGGCTGCCT CATATCCCTT GTTCTTCCCA
134041 TTAGCCCTGT CACAACCTTG TAGATATCCC TTCATTATAT GCCCTTCATA TATTTCTTTG
134101 GTTTAACTTT TTCTGTTGGA ATCCTAATAT GGCACTCCTC CATTTTTTCA GACCAAAAGA
134161 GTATAAAAGA TTATCTTTTA CCAAAAAAAG GACAAAAAAC TGATCTAATT CCTGATTTGA
134221 TCATTACACA ATCTATACAT GTATCAAAAT ATCACATAGT ACCCCATAAA TATATACAAC
134281 TGTGTCCATT AAAAATAAAA ATTAAGAAA AGATGGTAAA TATAGCTCTG TCAGGCAGTG
134341 GAGGTTTTAC CACGATGGCT GTTATTTCCC CCATGAAGGG GGGAGTGAGG GAGCAGCTGA
134401 AAGTAGGTGC TTATAGGGGT ATAGAGGGGC TCAAAGCTTT GAGAGAGGAG AATGCTGTAA
134461 AGAGCTGCCA AATAGCATGC AGGTCCCAGT GGGGCAGAGC CTCTGCTCAT TCACCAGTGC
134521 CTCTTCAATA TCTACACTTA AGCCTAACAC AAAGTGTGTG CTTAATAAGT ATTTGCTGAG
134581 TATGTAAAGT GGAAACAGAA CCAATCTGGC AAACCTTTGT GGAAGTGGT GCAATGAAGA
134641 TCAGTCAGGT AAAATCTGTG GATATAAATT TATATTGATC AAAAAATTCA AGGTTAGGTG
134701 TTTTCTTCA GTCATGCTCA ACGATGCTTC AGCCATGCTC AACTCTTCTG TAGCCACAGA
134761 AAAAAAGTTA CCCATAATCG AGCTGTGTCT GTGTCTGAAT AATGAAAAGA CCATGATGCA
134821 AGGGAGTTGG AGACACAGAA ACAGTGTGTT AAGTAATGGG TAATGGAAGC ATGCTACCAG
134881 GGAAAGGAAA GAAGTGGCAA TAGGAAGGAA CAGAGATCTG TGGTCCTATG TCCCCTGAGC
134941 ATATTCACAT GTTAAAGCTA ATTCAGTTT CAATCATCAT TAAAAATTTG TTCCTAAATA
135001 TATGGCCATT ATTTTCCACA ACCACACTAA AACTTTATTA CCTCTGGCAA GTGACTATGC
135061 AAGTAACTAA GAGCAAAAAT ATCCACAAC ACCATTGAG CTATCAATTT AGGGAAAGTC
135121 ATCTGGCTAT AATCTAAGTG ACCCTCCACT GAATGTCAGT ATCTTTGCAT ATGTGATTTA
135181 AATCTGGGCC TTCGCAACAC CATGAACGT TCTTGTCTTG AATATCCAGA TTGAAGGAAA
135241 TAATCTGAGT AGTTACGAGT CCTGAAGCTA GAAAGATGGA AACCCTATTT GCTCATCAGA
135301 AAGCCTTAGA GCTTGGGCGC TGGCGGGTCC TGTCTACCG GGACAGAGGG GCTCTTCTCT
135361 CCCCATCTGA TAGTCTGATA ACTAGAGAAG CCGGCCAACT TATTCTCCAA GAAGGAGCCA
135421 TCTTAGTTCC TCCTGAAATG TTCATATTTA GAAATTATG TTTGTCAGTA ATTTAACCCC
135481 TTAATGGGCT TGCCTTGTGG TCCATACCAC TGAGTGCAGA GCTTGCCTGG AAGAATTGTG
135541 AGGGCCATTC CATCTTCCAG GCAGTAGAGT TCAGTACTTC TTTAAATTTG CTGCTGAACT
135601 CTGTATTTGA AAAGAAAGAA TCATTGGGGT GTGGTAGCTC ACACCTGTAA TCCTAGCGCT
135661 TTGGGAGGCT GAGGTGGGAG GATCATTGTA TGCCAGGAGG ACCACTTGAG ACCACCCTGG
135721 GTAACATAGC AAGACCCTGT CTTTAGAAAA AAAAAATACA ATAAAAATAA TACAATAAAA
135781 ATAAAAGCAA AAAGAAAGAG TCCATCTTAG GGACAGACTG TAACTACTCA CTGGAGCTTA
135841 CCTTTACATA GTTCAGGATC AATTATAATA AAACACTTTT GTGCAGATTC AATAGGATTA
135901 TTTTAATCCC CATCATCTCT CTGAGTTTCC AGTCAGTTTC TCTGCATGTA GACACCCTTC
135961 TCCAGCCAC CATGTCTCT CCTCTATAG CTCCACCAAC AAATCAGAAC TTTTCTAAC
136021 TGCACCTAGT GCACCTAGAG TCTACTCCAG AATGCTCATG GAGAAAGTTT CTGAAAGGTA

```

Figure 9 (Page 42 of 74)

131/162

```

136081  AAACCTCTGAA TGATATTTGT AGCTAAAGGG AGACTTGCTA GAGACAATAA GCTAATAGTT
136141  GTAGACTTCA GTAGAAGAGG AATGACACTG CAATGTCAGG GTGCAGGACT TCAAGAGGGC
136201  AGAGTATGGA AACCCAATGG GAAAAATGCT CACCAGGAAC ATGAAGAGAA GGAATTACGT
136261  GTAAGGATTT CTCAATGTGT TCCCAAATTT GCCCAGCAGA GGGAGGCCTC GGGTTGATGG
136321  CAGGCTGACC ACACAATTAA AGAAGGCTGA ACCTGGGGGC TTTTAACAAC CATCGTGGGC
136381  TCTACTGTAA GCATTTAGAA AAAGAAAGTT ATCCATTCAA AAATATATAT ATTTTAAAC
136441  TTCAGAACAA AATTATGAAG AGCTATATTT ACTTTTCTAC ATTCTAATTT TTATAAATCT
136501  GAGTATATTT TGCATATATT GTTATAGTAC ATATTCAATT TTGTATTTTG CTGTTTTTAC
136561  TTAACCATTT TTAGTAGATT ACTCTGTGTT CATAATAATC ACTTTTTTAA AACTTTTATT
136621  TTTATTTATT TATTTTTTTT TTGAGTCAGA GTCACACTCT GTCGCCCAGG CTGGAGTGCA
136681  GTGGCGTGAT CTTGGCCTTAC TGCAACTTCC ACCTCCTGGA TTCAAGCAGT TCTCCTGCCT
136741  TAGCCTCCTG AGCAGCTGGG ATTACAGGTG TGCACCACCA AGCCCGGCTA ATTTTGTAT
136801  TTTTAGTAAA GACGGGGTTT CACCATGTTG GTCAGGCTGG TCTCCAACCT CTGACCTCAT
136861  GATCTGCCCA CCTTGGCCTC CCAAAGTGCT GGGATAATCA CTTTTTATGC TGCATAATTC
136921  TTCAGATTTG TCAGTACGAC TGTATTTACA CTCATTTGTT TTATTAGAAA GAATTCCAGA
136981  ATATTTTGGC TGCCCTAATT AATTTTACAA TTAATATGAT TTTGAAATTG GGTATTGGCT
137041  CCTTCTGAAT TGGTTTATTA AAATATATTC TAATGTAATT TATGACATTT TCATCATATT
137101  AGCATATTTA TTCTGTTAGA ATTTTCATAAT TTATAAAGCT ACAAACTGTA TGTGATATAG
137161  CTTGTAACTT TATCTCATAA CTTTATGCAG TTACAAGTAG AAATAAAATG TTCCCTCAA
137221  GATTGCTTAA AATTTTATTA TAAACAAGTG TAAAAACAA AATCACTAAA ACACCTCCTC
137281  TTTTTTCCCC CAAAATGCAT GTTTCCATTT TAACAGAACC CGTATTTAAT CAGCAGATTT
137341  CTATGGTGGC TAGATTTGTA GACTAAATAT TAAAAGTCCC AAAGCAAATG CATTTTTCTC
137401  TTAAATTTTA CTGACTTTTT TTTTTTTTCT TTTTCTGAGA CGGAGTCTTG CTCTGTCGCC
137461  CAGGCTGGAA TGCAGTGGCA CAATCTCGGC TCACTGCAAC CTCCGCCTCC CGGATTACAG
137521  CCATTCTCCT GCCTCAACCT CCCGAGTAGC TGGGACCACA GGCGCCCGCC ACCACGCCCA
137581  GCTAATTTTT TGTATTTTAA GTAGAGACAG GGTTTCACCG TGTAGCCGG GATGGTCTCG
137641  ATCTCCTGAC CTCATGATCT GCCACCTCA GCCTCCCAA GTGCTAGGAT CACAGGCATG
137701  AGCCACCGCG CCCCCTAC TGACTTTTAT CCAAAGAAAA TATAAGAGCT CTTTCATCATA
137761  ACGTATGTTT CTTGCTCTTG TTATTAAATA TGACACATTT AGACTTAAAC TGATTTGAAG
137821  GTTTATGACA TTGTTTAAGT TATTACATAA TTAATTCATA AAGATAATGA CTAGTTTGAA
137881  CTAAGTACAG CTCACACATC ATCAGTTGAA CAGCAGAAAG CTTATTAAGC TACTTTCTTA
137941  TGTTTCTGTC TCCCAGCTAC TAAAAGAAAC GAAACCCTTC CAGGTGTTAA GGCAAACTT
138001  TCCTCCCCCT TTCTTCTATA AATCTGATTC CATGTTAGTG AAATTTCTAC TGATGGCTTT
138061  GGTTTCCTCT ATAGTAGAAT AGAGATCCTA TGGCAAAAGT CATGTCTGAC ATGGTAGCAA
138121  ATAGAAATGG GGAAAAGGAA GGTCTGCAAG AGCCAATGTG GGAAATGGGG AGAGGACTGA
138181  CTACAAAAC CCAGCAGGAA TTCCAGAAGA AAACCTCTCA GGACGGGCAC ATTGGCTCAT
138241  GCCTGTAATC CCAGTACTTT GGGAGGCCGA GGTGGGCAGA TCACTTGAGT CCAGGAGTTT
138301  GAGACCAGCC TGGTCAACAT GGCAGAACCT CATCTCTACA AAAAATAAAA AAATTTGTCA
138361  GGCGTGGTGG CATGCACCTG TAGTCCCAGC TACTCAAGAG ACTTAAGTGG GAGAATCACT
138421  CGAGCCTTGG AGGTGGAGGT TGGTGAGCCG AGATCACGCC ACTGCATTCC AGCCTGGGCG
138481  ACAAAGTGAG ACGCCATCTC AATCAATCAG TCTCCTCGAA AAGCAACATT ATGGAGAGAC
138541  AGGATTCCTG CAAGGCCTGG GGCACACAGG AAAATATTAA GGCAGAAGAG AGTTTCTCTC
138601  CCACACCACA CCGTATCCCA CAGGCACTGC GGATGTGCAT ATGCAAGAGG GGTTGATCCT
138661  AAGAATTTAG AGTCACAGAG GAGGAGGCAC CAAGCAGACT GTGGAGAAAG TCATGACCAG
138721  AAAGGGACAG AATGTAAAGC TTCAGCTGAT TATCTGGCCT CAGGGATTCC AGAGGAACTG
138781  GTCCCAATGG TCTCCTGGTG ATGTAGGTTT TTAGGTTTCT TTTACAGGGG TTTTCTGGGA
138841  GATCGTTGAC CCAGTTAGCA TTCAAGCAAC TTCCACCCTG CACTTTTATT CTTTCCCCTT
138901  CACCTGCTTA GGTTTTATCT GTCCAGGCAA TAATAATAAA ATTATTGAGC CCTGGACATG
138961  TACCTGTAAA GTCCTTAAA GATGATGCCT TCTAACTCCT CATTCAACAG ATACAAAAAC
139021  ATTACAATAA AATGACTCAT GCAAGACACC CAGGTAGTTT ATAGCAGCTA ATAAAAACAG
139081  AATAACTATA AAATATGGTA AGTTTATAAA AGTTACATTG AGTATACTTT ATAAGAACTG
139141  CTTATTGAGT TTGCCTAATA ACCACACAGC ACAATAATAA TATGTATATA TTTTAAATA
139201  TGTGTAAATA TGTGTAACAC AAACCTGTAG AAGGTATATC TGAGTACAAC CCTATTCTGT
139261  TTGGTTACCT TTTCTAGTTC ATTATGTAAG TGGCATAGCT ACCTAAGGAC TTATGCTTAT

```

Figure 9 (Page 43 of 74)

132/162

139321	AAATGTTACT	CAAAAAATA	CAGAGGACAT	ATGTGGATAG	ATAATGGAAG	AGATAAGATA
139381	GGTAGGTTGA	AGGGTTGGGC	TGCCCCCTCCA	CACCTGTGGG	TGTTTCTCGT	TAGGTGGAAT
139441	GAGAGACTTG	GAAAAGAAAG	AGACACAGAG	ACAAAGTATA	GAGAAAGAAA	AAAAGGGGTC
139501	CAGGGGACCG	GTGTTTCAGCA	TACGGAGGAT	CCCACCGGCC	TCTGAGTTCC	CTTAGTATTT
139561	ATTGATCATT	ATTGGGTGTT	TCTCGGAGAG	GGGGATGTGG	CAGGGTCAAA	GGATAATAGT
139621	GGAGAGAAGG	TCAGCAGGTA	AACACGTGAA	CAAAGGTCTC	TGCATCATAA	ACAAGGTAAA
139681	GAATTAAGTG	CTGTGCTTTA	GATATGCATA	CACATAAACA	TCTCAATGAC	TTGAAGAGCA
139741	GTATTGCTGC	CAGCATGTCC	CACCTCCAGC	CCTAAGGCAG	TTTTCCCCTA	TCTCAGTAGA
139801	TGGAATATAC	AATCGGGTTT	TACACTGAGA	CATTCCATTG	CCCAGGGACG	AGCAGGAGAC
139861	AGATGCCTTC	CTCTTGTCTC	AAC TGCAAAG	AGGCGTTCCCT	TCCTCTTTTA	CTAATCCTCC
139921	TCAGCACAGA	CCCTTTACGG	GTGTCGGGCT	GGGGGACGGT	CAGGTCTTTC	CCTTCCCACG
139981	AGGCCACATT	TCAGACTATC	ACATGGGGAG	AAACCTTGGA	CAATACCTGG	CTTTCCTAGG
140041	CAGAGGTCCC	TGTGGCCTTC	CTCAGTGTTC	TGTGTCCCTG	AGTACTTGAG	ATTAGGGAGT
140101	GGAGATGACT	CTTAACGAGC	ATGCTGCCTT	CAAGCATTTT	TTTAACAAAG	CACATCTTGC
140161	ACAGCCCTTA	ATCCATTAA	CCCTGAGTTG	ACACAGCATA	TGTCTCAGGG	AGCACAGGGT
140221	TGGGGCTAGG	GTTAGATTAA	CAGTACTCTA	AGGCAGAAGA	ATTTTCTTTA	GTACAGAACA
140281	AAATGGAGTC	TCCTATGTCT	ACTTCTTTCT	ACACAGACAC	AGTAACAATG	TGATCTCTCT
140341	CTCTTTTCCC	CACAGGAGGT	GATGGCCCGA	AGAACATGGC	AGAGGGCAAA	ACAAAACAGC
140401	ATTGGGAACA	AGCTCTGTTT	AAAAGGAGAC	TTGTGAACAG	CAAAGAGTAG	AAAGGGTTCT
140461	CTTACAAC TG	AAGCCCATGG	AAGACAAATG	TGTACTGCGT	GAGTTTTAAG	GAAATAGGAG
140521	TAGTGGGACC	TAGGGCACAC	CAGAGAGCAT	ATTAACCTCT	AAACTTTTAA	AAACATTATA
140581	TCTGCTGGAC	ACAGTGGCTC	ACACCTTAAT	CCTACAAC TT	TGGGAGGCCG	AGGCGGGCGG
140641	GTGTAGCTTG	AGCCCAGGAG	TTCGAGACCA	ACCTGGGCAA	CATGGCAAAA	TCCCGTCCCT
140701	ACAAAACAAA	CAAACAAAAA	ACAAAATTAG	CCAGGCACGG	TGATGCGTAC	CTGTGGTCCC
140761	AGCTACTCAG	AGGCTGAGGT	GGGAGGATCG	C TTGAGCCCC	GGGAGGTTAA	GGCTGCAGTG
140821	AGCCATGATA	ATGCCACTGC	ATCTCAGCCT	GGGCAACAGA	GGGAGAACCT	GTCTCAAAAC
140881	AAAAACAAAA	ACACACCATA	CCCAACCACA	ATGCATCTGT	CTTAAGTACC	AGTACCACAC
140941	CCCTCTACTC	ACTACTAAAT	AGGTGAGTTC	CCAATCCCTG	GTAGCAGGTT	TAAGCATGTT
141001	ATATTAAAGG	TCTTAGGCTA	GTGACTCATT	CACTCATTA	ACAAATACTT	ATTGTGCATC
141061	TACTATAAAC	TAAGTACTGT	GCTAGGTACA	AAAGCAAATA	ATCTAAGCTC	TATAAACTTT
141121	ACTTTCTTCA	TCAACAAAAT	GGAGATGTTT	TAGGCATCTA	CTCATCATTC	TGAGCTCCAT
141181	CTTTTGTGAC	TGTAGTTGGC	AGAGCTTTTT	ATCAGTTTCT	CTAAATAGCT	CTACCAGTCC
141241	CTGGTGGATG	CTGGCATGCC	CAAAGGATCC	ATCCTGATGG	CCCTGTCTGC	TTACCTTACC
141301	TGCCTGCCTT	TGCAGCACC	CTCTGCTCTT	CTGCAGGACT	TCCCTTATCC	TTTGGGGTCT
141361	TGCTGCTCTT	AGGCTGCTCT	GCTTGTTTTG	ATCTGCTTTG	CATCACATGT	ATGTAAAGGT
141421	CTTTTCCCTA	TTTACCCATG	ACCAAGGTAT	TATGAGATTC	TGGAATTTCC	CCAAACCACA
141481	TTGATTGCTG	GGAGAATAGA	AGAAGTGGAT	TACAAGTGGA	ACTTAGAAGG	GGAGTATTTC
141541	AGAAGACGTC	TCTGCAAATC	CATTTAGAGA	GACCTTTCTC	CAGTGGTGAC	TCAAAGATGC
141601	AGCTCCTTTC	ATCCTGTGGC	TTGGCCATCT	TCAGCACATG	GCTCCCAAGG	ATGTCCTCAG
141661	GATGGTCTCT	AATCCAAGGA	GCCTGAAGAG	AAAAAAAGGC	ATGGAGTATT	GTGAGTGGTA
141721	GGTGGTTATG	GACCAGTTAT	GGAAGAATAC	ACATCACTTT	TGCCCACCTT	CTACTAACCA
141781	GAACCTCACAC	AGCCATAGAC	ACTGACAAGT	AGGACTTAAC	AAGAATCTAA	TTTTGAGTCT
141841	AGGAATACGA	CTGTAGCAAA	TATTTAACAG	CTTCAAACAC	AGGTGCATTG	CTATCACTAT
141901	GCTTGGCCCA	GGCCTGTCTC	CCTTTCCCTG	CATGTCACAG	GGGCCAGCAT	TTATGTCTAG
141961	ATTGGGTTGG	TTGGGATATT	AAGACAATAA	TGAACCAATA	CAACATCTTG	AGCATAAAAC
142021	CAACTGATAC	AATGATGTAC	AAGTCAGATG	ATTCTGATGA	TTATGAATTA	TGTCAATAAA
142081	AGAAATGTGA	TAAC TAAGGT	AATTTTTGTT	TTGGCAAATT	TTTGTTTGTG	CATGACAGGA
142141	TGAAATCCTG	TCATTTGTAG	CAACATGGAT	GGAATTGCAG	GATACTACAT	TAAGTGAAAT
142201	AAGCCAGAAA	CAGAAAGTTA	AACACCACAT	GTTCTCACTT	ATATGCAGAA	GCTAGCTAAC
142261	TAAGTAAATA	AGTTTATCTC	ATTGAAGTAA	AAAGTACAAC	AGAGATTACT	AGAGGCTGGG
142321	AATGGTAGGG	GAAAGAGATG	ATAAAGAGAG	ATTCATTAAA	ATAAGTTACA	GCTAGATAAG
142381	AGCAATCAGT	TCTAGTGTTC	TATTTGTACT	ACAGAATGGC	AATAGTTAAC	AGTAATAAAT
142441	AATTTCAAAG	AGCTAGAAAA	GAGGACATTG	AATGTTTCCA	ACACAAAGAA	ATGAGAAATG
142501	CTTGAAATAA	TGGATATTCT	AATTAATTAC	CCTGATCTGA	TCACTATACA	CAGTATGTAT

Figure 9 (Page 44 of 74)

133/162

```

142561 AAAAATAACA CTATGGGCTG GGCGCAGTGG CTCACACCTG TAATCCCAGC ACTTTGGGAG
142621 GCCAAGGTAA GCAGATCACT TGAGGTCAGG AGTTAGAGAC CAGTCTGGCC AACATAGTGA
142681 AACTCCATCC CTAATAAAAA TACAAAAATC AGCCAGGCGT GGTGGCATGT GCCTGTAATC
142741 CCAGCTACTC AGGAGGCTGA GGCAAGAGAA TTGCTTGAAC CCAGGAGGCG GAGGTTGCAG
142801 TGAGCCGAAA TCGCGCCACT GCACTCCAGC CTGGGTAACA GAGCAAGGCT CTGTTTCAAA
142861 AATAAATAAA TACATAAATA AATATTTTTT AAAAAAGAA CATCACTATG CACCCCATAT
142921 ATACATATAA TTATTATGTC AATTTGAAAC ATAATTTTGA AAAATGAAAA AATGAAACAC
142981 AAATATGAAT CAATCCTCTC CAAGTTGATA TACTTAAAAG GAAAAAGTC CGAGGGCTTA
143041 AACTATTCAA TCAAAATTTT ATTAATAATG TATAGTAATC TGGAAAGTAT TTCAGAATGA
143101 ATTGGTATAA GGTTAGACAC AAAGATCAGT GAAACAAAAT AGAGAACCCA GAAATAGATT
143161 CACACATCTA TGGACAACAG GTTTTGAACA AGGTGTCAAG GCTATTTAAT AAGTAAAAAA
143221 ATCGTCTTTT CAGTAAATGT TTCTTGAACA AGTAGACATC CGGTGTGGGG GAGAGGAGCA
143281 GGAGCCTTAC CTCAAACTTT ATGCAAAAAA TAACTCAAAA TAGACCATAG ACTTAAATGT
143341 AAAAGCTAAA ATTATAAAAC TTCTTTAAAA AATAGGAGAA AATCATCAAC ACCCTAGGAT
143401 TAGCAAAGAT TTCTTTAAAA CAAAACAACA GGTTTATAGT TTATAAAACA TAAATAACAA
143461 AATGATAAAT TTCATCAAAA GTGAAAATTT GCTTTTCAAA AAACATTATA AAATGAAAAG
143521 CAGGAGGCTG AGGCATGAGA ATCACTGGAA CCCGGGAGCT ACAGGTTGCA GTGAGCCAAG
143581 ATGGTGCCAC TGCCTCCAG CCTGGGTGAC AAAGTGAGAC TCTTCTTAAA AAATAATAA
143641 ATAAATAAAT AAATAGAAAA GAAAAAGAAA AATCACAGGC TGAGAGAAAA TATTTATAAT
143701 ACATGTATCT GACAAAGGAC TCGCACCTGG AAAATATAAG GAACCTTATA ACTTAGTAAG
143761 ATGACAAGCC AAAACAAAGA GTAAAAGTTT TCAACAGACA TTTCACAAAA GAAAACATAC
143821 AAATGGCCAG TATGCACATG AAAAGATTTT AAACATCATT AGTTACTAGG GAAATGCAAG
143881 TCAAAACCAC AATGAGATAC TTCACATTCA ACAGAATAGC TAATGTTAAA AGGACTGACA
143941 ATCCCCAGGG TGAGCAAGGG TGTGGAGGAA ACTACTCTCA TATATTGTGA ATGTAAGAGG
144001 CATTTTATGA TATAACTGAA TTCAGTTTTA TGTATAACTG AATTACGGAT ATGAGAATCT
144061 CAAATGAGGA CGAATGGTTT TTACGCACAA AACATGAGAC ACAAATCTGT AAGAAATATA
144121 AAGTCGTGAC CACGTCCTTT CAGAACTTTA ACCTGTTTGC TGAAGTACGT CAGTAACAAT
144181 GGCAGGGAAA GGGTATCTTA AATTTACCA CAGCCTCAA GAGGCCATTT CGTGGATCCG
144241 CTGAGGCTTG GAGTCGGCCT TCTGACCACG AGTCCTGCGG CTATGAAAGA GGAAGCCGCG
144301 GTTCAGGGCG TCCTCGCGAG TCGCGCAGCC CGCCCTGCTC CAGCTGGGGA CACAGGTGGT
144361 CACGGCGCTT TCCAGCTGCA GATCCAGGCG GCAGCCCAAG ATTTGGTCCA GCCGCCAAGG
144421 GGTGGCTCGA GTGACTGACG GGCCTTGAAC GCTCCCAGGA CCCACATCTG GAGAGGGAGG
144481 TGGGGGTGGG GTGCTGAAGT CATTCCTGGG GCCCTGGGG GCGGGCATGG ACCTGGGTAA
144541 GGCCAGAGAA ATTGACACCT CGTGACATCC CTGGAAGAGA AGTACGTTCA GTGTCACTCC
144601 AGAGCTGAAA GATACCGCCT TCTGGCTGGT CCCTCCTCAC CTACATACTT TTCTAATTTG
144661 TCTGGAGCAG GCCGGGCATC TGTATTATCT GGTATTTTAA ATATCTGGTT ATTTAAAAGC
144721 TCTCCATTAA ATTACATAC ACGAAAATAA AAATTA AAAAATTTTAAA AAAAAGAAAC
144781 AAAAGCTCTC TAATGACCAA GTCCTACACG ATAGTGAATA AATTTTTTTG TGTGGTCCCT
144841 AAAATTGAGT TCATGCCTTT TCTGAAGTAA TAGACGCCCA GAGAAGGGAT CGACTTACCC
144901 ATCATGCCAC AGAGATTAAT TGGCCCCAGA ATTCTTTAGC AGACCGTGTA TATGAACGTC
144961 CTTTGCAATC ATATAAATTA ACTGGGAAAA CCTCATTTAG TATGTTACAT GCCTAGCGTT
145121 TTGTGCCCTGA ACACCTTACA AGAACCAGGG ACTATTGCCC CAATATTATA TTTCAGGAAA
145181 GGAAGGCCCCA GACAAATGGT GTCACCTGGT CACTTTCACC CAGTTGGTAA ATGAAACCAG
145241 AAATTATAGC TGTACCACAG AAAGGTGAAA ACGTTTCTTT TATAATTTCA CATACAATCT
145301 TTAATGGACC CAGTGTCCAA CACATTAAAG CAAGTGCTCA GGAGTGACAT CAAGATGTAA
145361 AAAATAGTCC TGTCTCAGG GAGTTTAGGT CTTGGAGAAA AGAGACCCAA GGAGACACAA
145421 GACAAAGGGG AAAGAGAAGG AGCGCTGAAG ACTGAGGACC CTGCCGTGG ACTGAAGTGA
145481 GGATGGGGAC ACCCGATGCC CGGAATATGA CAGTTTGGAG GGGCCTGAAG GACTCTTCTA
145541 TTCTCTATCA GAAAAACAGA ATTACTCTCC TAACCAGAAA AGGTATTTCA ATTTATATTT
145601 TCCATCACAG CACTTTTCTG GTGATAATTT AATGTGTTTT AAAAAATGTA TCACAGTGAT
145661 GGCCTGGTGT GAAATAAATA ATAAAAATTT AAGAATTTAAA AAATATAAAA ATCTTTTATA
145721 TAGACATTAG GAGTTACAAG GATAACTGTG AATTATAATT AGTAATTTAAA TTGAAATACT
145781 GATTATTTTC ATTTTATTTT AATTATTTAA TAAAACCTAT TTAACATTTA ATATTTATCA
145841 GTAATTAAAT CTAATTGTTA ATATTTATTA TTATAAATTA TTTTAGAATT AAAAATAAGT

```

Figure 9 (Page 45 of 74)

134/162

145901 GTAGAAGCGA GGCATGGTGG CTCAAGCCTG TAATCCCAAC ACTTTGGGAG GCTAAGGTGG
145961 GAGGATTGCT TGAGCCAGT AGTTCAAGAC CAGCCTGGGC AACATGGAGA AACCTGTCT
146021 CAATACAAAA AAATGAGCCA TGTGTGGTGG TGCGTGCCTG TATTTCCAGC CATTCTGGAG
146081 GCTGAGGTGG GAGGATGACT TGAGCCTAGG CAGTCAAGGC TGCAGTGAGC CCTGATCTTG
146141 CCACTGCACT CCAGTCTGGG CAACAGAGCA AGACCCTGTG TCAATATACA TATGGACAAA
146201 CTTAAAATTT AAAATGAAAG CATACTACTG ATACAGAATT GAGTAGAGAT GCAAAGCTAG
146261 TCCTATAACC AGAACAATAA AGATAAAAAG GAGAGTGGAA GAAGGTATGT CATGAATTTT
146321 ATGATAAATG GCAATTGCAA ATATCCTGTA GCAGAACAAA ACAACAAAAT TGTAAGATAA
146381 ACATATCCAA CCCTTTGGAA GGCCAAGGAG GGAGGATTGT TTGAGCCAG AAGTTGGAGA
146441 CCAGCCTGGG CAACATAGTG AGACCCTGTA TCTAAAAAGG AAGAAAGAAA AAAAAAAAAA
146501 AGGATGTATA AGTAGACAAT ATTGAAAGCC ATTTTCTGCA AATACATAGT GAATTTGATC
146561 AGTAATTTTC TTCCAACAGT GCAAAAATGA ATAGATATTA GTTGCTGAA ATAAAAATCA
146621 AATATCCAAC AAAAAATATT GACTATCTAA TAGTATCTAA GCTAGTAAAT TTGGCCAGTT
146681 ATAAAAATGTC TTAAATTTTT ATTTAAAAAA AGAAAACCAT ATTTATAAGA AGAGGTGATA
146741 AAGAGAAATT ATTTGAGTTA TGAAGATTTT GTTAGAAAAC TATGAGAAAA AAATATTTT
146801 TTGTTTTTCAA AAAGTGAAAG ATTAAGTTAC CAAACAGTTG CTAAAGAATA CCAGATGGCT
146861 GAGCGTGGTG ACTTATGCCT GTAATCCCAG TACTTTGGAA GGCCAAGGCA GGAGGATCAT
146921 TTTAGGCCTG GAGTTCGAGA CCAGCCTGGG CACTGTAGCA AGACCCGTCT CTATTAAAAA
146981 AAAAAAAAAA AAAAAAAAAA AATACCAGAC CTTGCTAACA ATAGCAAAGA TCAATTAATT
147041 CAAAATTTGA AAAACTGTAA TTTATTTAGC TTTAGAGTAC TCTCGTGATA TGAGATTGCC
147101 AAATTAATAC TTTGGGTGCA TTTCTTTTCT CAAAGGACTT GCAAATTTAC AAAGAAGTGT
147161 TGAAGAAAAG CCACACATTG GCAGGTAATG TTTGCAAAAG ACAGATCTGA TGAAGAACAA
147221 TATTTTTAGA ATATACAAAG AATACTTAAA ACTCAACAGT AAGAAAATAA CCTGATTTAA
147281 AGCAGGCCAA TGACCTGAAC ATCTGTTTAC CAAAGAAGAT ACACAGATGC AAGTATGCAT
147341 ATGAAAAGAT GCTTGACATC ATGTCATTAG GGAACCTGCA ATTTAAACAA GTAGATACCA
147401 CTGCATACCT AGTAGAATGA CCAAAATTTA GAACACTGTC AGCACCAAAG GTTGCAAAAG
147461 TATGTAGCAA TAGTAACCTG TTCATTACTG GTGAGAATGC AAAATGTGCA ATCACTTTGG
147521 AAGACAGTTT GGTGGTTTCT TACAAAAGTA ACCATACTTT TACCATAAGA TTCACCAATC
147581 ACACTCCTTA GTATTTATCC AAAGGAATTG AAAACTTATC TCCACACAAA AACCTGCACA
147641 TAGATGTTTA TAGCAGCTTT ATTCATAATT TATCCAAAAC TTGGAACAA GATGTCTTTC
147701 AGTAGGTAAG TGGATAACTG TGGTACTTCT GAATAATGGA ATGTTATTTA GAGTTAAAAA
147761 GAAATGCATT CACTTTGGGA GGCCGAAGTG GGTGGATTGC TTGAGGCCAG GAGTTTGAGA
147821 CCAGCCTGGT CAACATGGGA AAACCCCAAT TAGCCGGGCA TAGTGGCGTG AGCCTGTAAT
147881 CCCAGCTACT CGGGAGGCTG AGATATGAGA ATCGTTTGAA CCTGGGAGAT GGAGGTTGCA
147941 GTGAGCCAGT GCCACTGCAC TTCAGCCTGG GCAACAGAGC AAGACTCCTC TGTCTCAAAA
148001 AAAAAAAAAA AAAAAAAAAA AAAAAAGAA AGAAAAGAAA AAAGAAAAAG AAAAAGAAAA
148061 GAAACGATCA AGCCATGAAA ACACATGAAG GAAACTTAAA TGTATGTTAC TAAAAAGCCA
148121 ACCTGAAAAG ACTGCATACT ATATGACTCC AACTGATGCA GGGCAAGCAA GCCAAAAATT
148181 AGGGCTTAGC CCGGAAGAA TTCAAGGGTG AAGTGGTGGT GTTAGCAACT TTTACTGAAG
148241 CAGCAGTGTA CAACAGCAGA ACAGGTAAGT CTCCTTGCTG AGCAGGGCTA ACCCATAAGT
148301 AATGTGCCCA GAGTAGCAGC TCAGGGGCGA TTCTGCAGTA ATATACCTGC TTTTAGTTAA
148361 GTGCATGTTA AGGGGGATTA TGCAGAAATT TCTAGAAAAA GAGTGGTAAC TTCGGAGTAG
148421 GTACAGAGGA AAGAAGTCGA TAATGTCCTG TTGTTGCCAT GGCAACGAAA AACTGACATG
148481 GCGCTGGTGG GCGTGTCTTA TGGAGAGGTG CTTTAACCTC GTCCCTGTTT CGGCTAGTCT
148541 TCAATCTGGT CCGGAGTAAA GTCCCTGCCT CCGGAGTTCA CTCCTGCTTC CTGCTTCACA
148601 ACTGTATGAC ACTCTAGAAA AGACAGTAAC TATGGACACA GTCAAAAGAT TAGTTGATAG
148661 AAATTGGGTG ACAGGAAGTG TTGAAAAGGC AGAACACAGG ATTTTtaggg CAGTGAAACT
148721 TCTGTGATAC TATAATGGTG AATACATGAC ATTATACATT TGTCAAAACC CATAGAAAGC
148781 ACAACACCAA GAATAAACCC TAATGTAAAT TACAGACTTT CGTTGATAAT GACGTGTCAA
148841 TGTAAGTTCA ATTGTAATAA ATGTACTACT GTGGTGCTGG ATGTCTATGG TGGGGGGACA
148901 TTTTGTCTTC AATAGTTACA GTTGAAGTAA ATGTTTGTGT TTCCCACAAT GCATATGTAG
148961 AAACCTCTAC ATTCAATGTG ATGGTCTTTG GAGGTGGGCT CTTTGGGTGA TAGTTAGGTT
149021 TAGTTGAGAT CCTAGCAGAT CGAGTCTTCA TGATGGGCAT GATGGGACTG GTCCCTTATA
149081 AGAAAAGACC AGAAAAGCTAG CTCTCTCTTT GCCATGTGAA GACATAGCAG GAAGGTAGCC

Figure 9 (Page 46 of 74)

135/162

149141	ATCTGCAAGC	TAGGAAAGGG	CCTTCACAAA	GAATCAACTC	AGACCTCAGA	ACAGTGAGAG
149201	ATAAATTGTC	GTTGTTTAAG	TCACTCAGGC	TGTGGTATTT	TGTTTCAGCA	GCCCAACCTA
149261	AGACTGTTAA	TTGGATTAGA	AATTTCCCTT	TGGGGATGGT	GTGTGGCGGG	GGGTGCGGGG
149321	AGTACCTTTG	TTAAGCTTTT	ATATCAATGA	GTTTGTAGGC	TTTTCTTTTT	TGGTCATTGA
149381	CTAGGACAGT	TTAAATAGTA	TGAGTGTGAA	GGAGATTGTT	GGTCATCTAT	TCGATGTCCC
149441	TTCTCTGTTT	TTTAATATGA	GAACCTCTGA	TTTTCAGCCA	ACTACCCCTG	AAAAAAGCT
149501	AATCTTTCTG	ACTTCTTAAG	TGTGGCCATG	TACTAAATTC	TGGCTAATGC	AAGGCAAGCC
149561	AAAGGTTTTA	TGATAGGTTT	TAGGACACTA	GAGTAAAAGA	GAGCTGTTGC	ACACATGCTC
149621	TTACCCCTAC	TTTTGTGTCC	TTTTTTCCAT	CCTACAACTT	GGGTTGTGAG	TATGATGGCT
149681	GGAACTTTAG	TGGCTCTCTT	GGATCCCAGG	GGTAATTGAG	GGGTGGCTGG	AAGGAATCTG
149741	TGATTTTCTG	GAGTTTCCAT	ACACAAACAA	GACCTGGATT	TTCTGGGCTT	CCCAGACTTC
149801	CACATCTAGA	CTTGCTTTAA	ATGGGAGAGA	AATAAACTTG	TTTCAGCCAC	TGTCATTTTG
149861	GGCTATTTTA	TAGAACTTAA	TCTAATCTTC	AAGGGTACAT	GAATTGCTTT	TCCTTAAAAA
149921	AAAAATCAGC	CATAAAATCA	TCTTCTTTTT	TCTTTTGTTT	CCCACATTAT	TTAGTTGGAG
149981	CTCTGTAAC	TTTTTTTTTT	TTTTTTTTGA	GACAAGGTCT	TGCTCTGTCA	CTTAGGCTGG
150041	AATTCAGTGG	CATGACCATG	GCTCACTGCA	GCCTTGCCCT	CCTAGGCTCA	AGCAATCCTC
150101	GTCTCAGCCT	CCTGAGTAGC	TGAAACTAAG	GCACATGCCA	CCATGCCCAG	CTAATTTCTT
150161	TTCTTTTAGA	GATGGGAGCC	TGCCCCAGGC	TAGTCTCAAA	CTCCTAGCCT	CAAGTGATCC
150221	TCCCATCTCA	GCCTCCCCAA	GTGACAGGAT	TACAGGTGTG	AGCCACCATG	CCTGGCTGCT
150281	CTGTAAGTGT	CTGAATTTCA	TTTTGTATTT	ATCAGTCTGT	TTAGATTTTC	TTTCCCTTCT
150341	TGGGTCAGTT	AGGCCATTGG	TTTCTTTTTA	AAGGTTTTCA	AATTTATTTG	CATCTAATTC
150401	TTCAAATTAC	TCTCAAAATT	ATTCCAGTAT	ATATTCTTTT	GTTCTATTTT	TCTTCTGTAT
150461	TCTTTATTAA	AATAGCTAAT	GATTTATCTA	GCAGGACTTA	TATTCTTTCC	ATAACTTTCC
150521	TGCACCCCAA	TTAATCTCCA	ATTTTATATT	TCTTCTGGCC	TTCTTTATAG	TTTCCACAGG
150581	TTTATTTTAT	TCATTTTTTA	AAACTTTTAT	TTAATTGTTT	ATTTTATTAT	CATTCTTTCT
150641	TATTCAGCAA	TCTAAGTGCT	TAGGGATATA	GAATTTCCCT	TAAGCAGCAT	ATGCTAGGCT
150701	TTAACAATGT	TAGGGAGGCC	TCCCTTTTCT	GGGGAAGACC	ACACTTACAT	TAACACAGGA
150761	CTGTGGGATG	CCAAGAGGTA	GAGAAGAGCT	TATGAATATC	CAGATTACAT	CTTCACTGAT
150821	CCTGCACAAA	GGTGGGGTTC	CTCGGTTACC	CACTGGGTCC	TATTACCCAA	GTCTGGGTCA
150881	GCATACCGAG	ACTACGGGTA	TATAGAACAA	GTGCAACTGG	CGATAATCCT	TCTGTTGGGG
150941	AGAAAAATCT	TTTTTTTCTA	TTCATCTTAG	GTTCTCCATC	TGTGGCCCTA	TCAAGTAGAC
151001	TAACAAAAGA	CAGATTGACA	AGACAGAAAC	AAAGCATGTG	CATTGTACAA	ACACAGGGGA
151061	GTACTGAGAT	GAATACTCAA	AAGAGGATTT	AGAACTGGG	CTTATATAGC	ATTTTAAGAA
151121	AAGAATACAT	TTTTTAAGTG	ACAAGGAAGA	CGAAAAGGAC	TTTGAGTTTC	TAGTGCAGTA
151181	AATTGTGGGA	AGGCAACTTT	TTCTTTCCCT	TTTTTTTTTT	TTTTTTTTTA	AAAAAAGAC
151241	TTCTCTGGTG	CTATGTCCAG	GCTGATAAGA	GTCTAAAGTC	TCTGGTGACT	AACTTTTGTT
151301	CTTCCCCGAG	TAAGAAGACA	CCTTCACAAT	TTCATATCCT	GCTTTTAGGC	AAACAGGGAG
151361	AGGGCAGAGG	TGTTTGTTTG	TTTTTAATCT	ATTTTTTTTC	TCAATTGTCT	TCAACTCAAA
151421	ATACTTCTTA	TGCCAAAGAT	GGCATATTCT	GCTACCCTTC	ACTTACTACT	TACAACCCAG
151481	CCTCTATCAT	CATAATTAGA	ACTTCTGACC	CTGGGGAACA	TGGGCAATAG	TTTGAACCTC
151541	TTTATATCTC	CCTTAGGCAG	AGATGGAGGC	CCAGCCATGC	CTCTGACATC	TAGACACAAC
151601	TGTTGCTTCA	TTTCTCCTAT	TCTCAGAGGT	GATGTTGTAG	GACTTCAACA	AATATCAGTA
151661	AACATTAATT	TTTTTTTTC	TTGAGGCACA	GCATGATCTT	GGCTTACTGC	AGCTGCTGCA
151721	GGCTCAAGCA	ATTCTCCTGC	CTTGGCCTCA	CGAGTAGCTG	GGTTACAGGC	CCCTACCACC
151781	ATGCCCGGCT	AATTTTTGTA	TTTTTAGTAG	AGACAGGGTT	TCACCATGTT	GGCCAGGCTG
151841	GTGTTGAACT	CCTGACCTCA	AGTGATCCAC	CTGCCTCAGC	CTCACATAGT	TCTGGGATTA
151901	CAGGCGTGAG	CCACCATGCC	TGGCCATCAA	TTTTTATGTC	AACTCTAAAT	TATAACATTT
151961	AGCAATTTTG	TGACTTTTTA	TGGTCATCAT	TAATGTTGTT	TATGTTTTAG	TTGTAGTCCT
152021	GTCATTACTC	ACTCGGGTAT	GGTAATTTGG	TCTTTTTTCA	AATGAAGTTA	AGGTCTATTT
152081	GCTCTTCTCT	GAATCATAAT	AAGAACTGCC	AACAGCCATT	TCAGCAATAA	CTATTTACTG
152141	AGATTTTAAA	ATATTTCAAG	GTAATTGGTC	CTAGCAGACT	GGAAAATACC	AAATTTCTTT
152201	CCAGAACTGA	ATCCCCATC	AAAGTTCAAT	TTTACTCATA	ATTCCCTTTT	CATTTGAAGC
152261	ATCTCATTGT	AAGCCAGTCT	TAACCCCTTCT	CTCACACTTT	GCTTGGCTGT	TTCTCAGGTA
152321	GAACTCAGTA	AGTCTGGTAG	CCTCCAGGAC	TGCCGCTTAG	ATTATTAAAC	AACATGTCAG

Figure 9 (Page 47 of 74)

136/162

```

152381 TGGTTGGAAG AGTCAATGTT ATTTTGATTT TTCTGTTTTG TTTTGTTTTA AATGCAGTTG
152441 GCGGATAATT GCAGCTTTCT TTCATTCCCT ACATGAGTTC AAATGGCAGC AAACAAACTA
152501 GGAGAACGCA GACCTTCTGA CTTGTGGGTA CCCCTACTCA TCACCTGAAG ACCCTTGGA
152561 ATCAAAGCCC TGACCCATTA AAGACGGATG GAGACAGCAA CATACGATCA TCACTATTAT
152621 CTTGCTTTGC CCCAGTCCAG GTTAACCATC TGTGGTATTT TTAGTTGCTA AGTCCATATA
152681 TTCAACATAA ATCAATTATA TATCCACTAA AATCTCAGCA CTAGTCTAAC TACTAAGGAA
152741 ATGACAGCGA AGAAAACAGA CCAAACGTCT GCCCTTATGG GATTTATATT ATTTTCTCTG
152801 TGCTGGTTAA ACCAAGGAGC TTCTGCTCTT TTCCTTAGTC ACCTGGGGGA GGCAGAAACA
152861 AAGGAGAATA TTGATAAACC TGGAAATAGG GCCGGAGAGT ATCAGAGAAG GAAGCCTTCG
152921 GGAAAGTAAA GATGTGGCAG CAGTATTCC CGTTATAAAA GGATACAAC CCGGCCTCAT
152981 AGTCCAGAAA AATCCCACA AGCAGGGGCT GCTCATGCAG ATGAAGGGAA GTTGGGGGAG
153041 AAGTAAGTGC TACATAGCCT TTCTTTTGC ACAGCCTGAG GGTCCAGAA CAGACTGAG
153101 GCTCTTGCTT CATGCCAGTG CCCCTCTGCA CATTTTCCAT ACAAACTCCT AAATCCCATC
153161 CGGTTCCCTC GCCAACATCC ACTTCAAAGT AACGTCTTCC TGAGGTGAAG CCTTCACAAC
153221 CCAAGACGCA GGGGAAGGCA GTAAATCTCC TGGAAAGATG GTCCTGATTC TCCTGGGTGT
153281 ATCCACGAGT CACTTGTCTC CGATCCTCAG AGAGAATTAG TTCGTGATGA GCTGTATCTG
153341 GATCCAGAGT CACACTAAT GCAAAAACAA ACAAAACAAA CAAAAATAAT TTTGTTGCTG
153401 TGAAGAACAC AGGTTATTTT ATTTTATTTT ATTTTGAGAT GGAGTGTTC TGTCACCCAG
153461 GCTGGAGTGC ACTGGCACTA TCTCAACTCA CTGCAACCTC CACCTCCTGG ATTCAGGCAA
153521 TTCTCCTGCC TCAGCCTCCG GAGTAACTGC GACTACAGGT GCGCACCACC ACAAGTGGCT
153581 AATTTTTTTT AATTTTCTGT AGAGATGGGG TTTCCGCATG TTGGCCAGGC TGGTCTCAA
153641 CTCCTGACCT GAAGTGTTC ACCCACCTCG GCCTCCCAA GTGCTGGATT ACACAGGTGT
153701 GAGCCACCAT GCCCAGCCAC AAGTTATTTT CAATAAAACC AGCCTGTGTT CAAACCCAAC
153761 TATTGTTTCT TATAAACTGG GTGAGCTTAG GCAAATCATT TAACTTTCTG AGCCTCAGTT
153821 TGTTAACTAT AAAGTGGAAA TTACCGTATT TGTTGCAGAG AATGGTGGGT AGGATTGAAT
153881 AAGCTTATGT TTGCTTAATG CTTGGTAAAA TTCCTGGTAC ATGGTAACCA CCTAATAAGT
153941 GGTAGTTGTT GGGGTGATCA GGCCCAACAC CAGGCCGTGG GGGCTACAAA GTCCGGCGGG
154001 GTCAAAGGAA TGAGAAAAGA CAAGTTAAGA GTGCATAAAG TGGGTCCAGG GTGCCAGCAC
154061 TAGATTGGAG GCTGCAAAGG CCCTAAGCTC TGGGAGCCCA CACTATTTAT TGGTGATCAA
154121 ACAAAGAAGC AGGTGGTGAG GACGTGAGGG TAAACAGGTG AGGGCATGAG GACATGGGGG
154181 TAGAAAGGTA GTGGTGCAAT AAGCGTAGCT GTGACAGTTT AGCATTTTCT TTGACACATG
154241 TAGAATATAC TCTGCTGCTT GAGATAGTAG AGGACACGTT TATGAGTGAA AAGCAAGGAA
154301 CCAACAAGTC TGTGCACTTT CCAGAGGCTA TGAGGGGTTT TATGCCCTGA GCCCTGGGTT
154361 CCATCCAAGC CACAAGGGGT TTTATGCCCT AGGCTTAGAT TTGTGGTGCG GCAGGGCAGC
154421 CTTCCACCAT TTGGCACAGA GCTTGGTGTT CCAAAGGCCA CGAGGGGTTT TGGACCCTGG
154481 ACCCCGGACA TCTTCCAAGA CTCTTTTACA TTATGACAGA CAAGCCAGTC CTGCTTCAGC
154541 TCTTCTAACA ACATGTAGTA ATAATGATAT CATCAACATC ATCTTCGTCT TAATTATTCA
154601 AGGATGCCAA GGTACAGAAC TAACCTGTTA ATATGGTTAC CATCCTGTCC AAAGTTCTTC
154661 TCCCATGCAG GACTTCCAGG AATCATGAGA CAGTTGAGCA GAAAGATACC TTTTCCCTTC
154721 TCTACTGAAT AACCACCAAC ATTGAGAATC AGAGAGGGAA AATGACTCAG CTAATGTCTT
154781 AGCTTGTTAT TGAAGACCC AGGTCTCATG ACACATGCCT AGTCCCATGA CTTTAAATTG
154841 TAAGCTCTTC TCTTTCCCTT CAGATAATGT TCCATAAGCA TTAGTATGAG ATAATAATAC
154901 ACTGAGGACC AATATACATG AAAAATATCA GACTAGAATC AAACAAGACA GAAAAAGAT
154961 CTGATAACCT AAAGTGAGAT ACTGAACAGT ATGCAGTTT AAAAATAAAA AATGGTAATA
155021 GGATGTTCTA ACAAGAGAGT TAAGAAACCA CTGTGCTACT GAGTTAAATG TTGATCAGTT
155081 GGTCTGTGAC AATTAAGGAA TTCAAGTATT CAGAAACACT TCCTGTGCTG GATGCTCTCT
155141 GTTTGTTCTT CCAAATAATC CCTCACTTTT CCCTGTCTTG CTCTGTGCCC AGGAAGGCTG
155201 ACATGGACAG ATTAACCAGG CTTTCCGCCC TCTGGCTTGG TTCAGCCAAT GGAAGCACC
155261 AGAGGAGACC ATAGGGCACA AAGAAGCAGC CTTGGGAGTA TTCAGTACCC CAGTCCCACG
155321 CTATGATTTG GAGGGTCTGC ATTCTCTGCT CTCTGGGCAC ACTCTAGTAT AGTTACAGCT
155381 CCCTACACCT GCCACTTGAG GCCCAGAGGA GGTGATGGCT CTCTAACTGT TCCTAGTTCT
155441 GGGTGCTTCC TGTTCTTGT GGATTTCCCA ACTCCTCACC TTTGTAAATA CCCTCCTTTT
155501 TCAAACCTTA TTCAGTTAGC TTTTATCAGC CTGACTCACA GAAGTTTGGG GTTTCAATTC
155561 ATATTACCTG AATGACCCAG GAAAACCCAT GTTGAGAAAT TAAATGTTT ACGGGGTGGT

```

Figure 9 (Page 48 of 74)

137/162

```

155621 AATACCACTT AAGAGAAAAA ATATCAATTG GATTTTTTAA ATTCCACCTA TCTATTGGTG
155681 TGACACATCA AAAAAACAT ATAGAAAGAT TGGAAGCTAA AAGATAGATA ATATAGTCAT
155741 ATACTGTTAT AGTATTATAT CAAAAGATAT TAAGTCAGAG CATTATTAAG AATGGAAGAA
155801 GGGCCAGGTG TGGTGGCTCA TGCCTGTAAT CCCAGCACTT TGGGAGGCCA AGGCAGGCGG
155861 ATCACTTGAA GCCAGGAGTT CAAGACCAGC CTGCCCCAACA TGGCAAAACC CTGGCTCTAC
155921 CAAAAATACA ACAATTAGCT GGGCATTGTG GCACATGCCT GTAATCCCAG CTACTTGGGA
155981 GGCTGAAGCA CAAGAATCAC TTGAACCGGG GAGGCAGAGG TTGCAGTGAG CTGAGATTTT
156041 GCCACTACAC TACAGCCTGG GTGACAGAGA GAGATTCTGT CTCAAAAAAA AAAAAAAGA
156101 AAGAATGAAA GGAGTCACCT AAAAAAGATA ACACAATTTT AAACATAAAT GTACTACATT
156161 ATTAGTGAAT TCATGTTTAG AATTGTGTTA ATATACAAAG CAAAAATTGT AGAATTATAG
156221 GAGAAATGGA CAAATCTACA ATCATCATGG GATGTTTTAA CATTCTTCTT TCCATAATTG
156281 ATAGATCAGG CAGACCAAAA GAAAGAAATA AGGGAAGATA CGGAAGGTCT GAACAATCTA
156341 AGAAGCGCAA TCTCATAGTC AATACATAAA GCTCAGCAAT TGTTTAATAA TAGTAAGCAG
156401 AGAATATGCA GTTTTCTCAG GTATAGATGG AACATGCACT AACTGAGTAA ATACTAGGCA
156461 GAAACAGTC TGAACAAGTT TCAATAAATC TGTATTACAC AGATCATTTT CTCTAGCCTC
156521 AATATAAGAT TATAAACCAA TAATAAAAAAG ATGACTAAAA AGATTCTAAA TATTAGGAAA
156581 TGTAACACTAC TAATAAGTCA TTAGAAGATG TATAGAATGG AACAATAATA AAATGTTATT
156641 TATAAAAAATA TACAATGAAG CTAAGACAGA ATTTTAAGGA AAATTTGTAG GCTTTAAATG
156701 CTTATCTTAG AAAAATTAAA AAGCTGAACA TTAATGAGCC AAGCATCTAA TTTAAATTTT
156761 AAAAAAGACA TAGAAAGCCA AATATAATTT TTTAAAAAGA AAAAAATAGT ATTAAACAAT
156821 ATAACAGTGA AGTTAAAGAA AACAGAATG CAATAAAGAG GAAAAACAAA CAAAAAATA
156881 AGTAGCTTCT TTTAAAGAA ATTTAATAAA ATAGACATAC CTCCAATGAG ATTTATCAAA
156941 GTAAGACAGA AGGCACAAAT GGAATGAATA CAGAAACTTT TAAATATTA CAGAACTTTA
157001 TAATAAATCT TATGCTACTA ATAAAAATTGA AAGTACTGAT AAAATTATTA CTTCCTAGAA
157061 AAAATATTTT TGAGTAAAC TCACTCAAAA AACAAATAAA GCATGGGCAG ACCTAACATT
157121 AAAGAAATGA AATCACTACT TTAAATTTTA CCGACAGATA ATAAAAACGTG CATCTTTATC
157181 AAGCAAAAAT GGAACCTGTC AGTTTTATAG GAAATTTAGA AGTCAAGGCA TGAGTAATGC
157241 CAATCTCATA CCAAATCCTA CAAAGAATAG AAAATTATGG CTCCCCTTA TAGACATAGA
157301 TATAGAACTC CTGCACAAAA TAATATAAAT AACAAACCAA ATTTTATATT TGCAACTATA
157361 CATATTATAT GTGTATGTAT TATATATGTT AACATATACA TATATAATAT GTATAGCATA
157421 TGTTCTACAT ATTATATATG TATAGTGTAT GTATTTTACA ATATATAAAT GAAAACCCAA
157481 TCTTTAATAT ATTCATCTAG ATTGTCATAT ATGACATATA TAATACATTA CATCAAAAAT
157541 GTGTACAATA ATCAGGCCAG GCACAGTGAC TCATGCCTGT AATCCCAGCA CGTTGGGAGG
157601 CTGAGGCGGG TCAATCACTT GAGTCCAAGA GTTTGAGACC AGCCTGGTCA ATATGGCCAA
157661 ATTCCATCTC TACAAAAAAT ATGAAAAATT ATCCAGGCAT TGTGGTGCAC ACCAATAGTC
157721 CCAGCTACTC GGAAGCTGA GGTGAGAGGA TCACTTAAGC CTGGGAGGTG GAGATTGCAG
157781 TGAGTCGAGA TTGCGCCAGT GCACTCCAGC CTGGGTGGCA AAGGGAGACC CTGTCTCAAA
157841 AAAAAATTAA AAAATTAGCC AGGTATGGTG GCCTGTTTCT GTAGTCCCAG CAACTGGGGA
157901 GGCTGAGGTG AGAAGATCAC TTTAGCTCAG GTGGTGGAGC CATGATCGCA CCACTGTACC
157961 ACTCGGCTTG GGCAACAGAG TGAGAGCCTG TCTCGAAAAA ACAAATATAT ACACACAGTA
158021 ATCAATATAT ATATTATATG TACCAATCAA TGCTTCACTT TTATATATAA TATAGATTAC
158081 ATCTTATTAG ATATATAGTA TTCCTTCTCC ATAGATAGAT AGATACAGAT ATAGACATAG
158141 TATCTCTAT CCATATTAGA GAGAGGATAC TATATATATC TATAGCATAT AGAGATGCTG
158201 TCTCAAAAAA ATTTAAACAT CAGCCAGATG TGGTGGCCCA TGCCTGTAGT CCCAGCTACT
158261 GGGGAGGCTG AAATGAGAGG ATTGCCATTG ATCCTCTCAT TGGTTGAGCC ATAATCGCAC
158321 TACTGCACCA CTCAGCCTGG GAGACAGAGG GAGACCTGAG GTGGAAGGAT ATAGATATAG
158381 ATATATAAAT AAATATGTAT AGAGAGAATA TAATATATGT GTGTATGTGT ATATATATAT
158441 ATTATGAAGA CACTGGGAGA GAATACTATA TATATATGTG TGTGTGTATA TATATATTAT
158501 GAAGACACTG GTGGGATGGT TTCATTACCA ATTGGACCAA GAGTCCAGGT ATGGAGCCAA
158561 CATGCAATGT TGTGTTGAC TGAGCTGGCA GAGCACTGGT CATAGTTACG GAAAAAGAAG
158621 GTCTCCAATG AGACATACTT AACAAAATAT ATGAACTTGC CATATACGTG GAGAGTTCTG
158681 GTGTGTATAT AGCCTTCTCT CACCAACCTA GCAATTGTCT TCATCATCAT TATAATGCTA
158741 TCAGAGCAAA GATGACAGCT AAATTTTTTT GTCCCTTTCT TCTTCTTTCT CTTCTTTCCC
158801 CTCCCCCACC TCTTCTCTT CCTCCTCCTC CTTTCATCTCT CTTCTTTTTT TTTTGGAGAT

```

Figure 9 (Page 49 of 74)

138/162

```

158861 GGAGTCTTAC TCTGTCGCTC AAGCTGGAGT GCAGTGGCAC AATCTCAGCT CACTGCAACC
158921 TCTGCCTTCT GGGTTCAAGC AATTCTGCCCT AAGCCTCCAG AGTAGCTAGG ACTGCAAGTG
158981 CACACCACCA CACCTGGCTA ATTTTGTAT TTTTAGTAGA GATAGGGTTT CACAATGCTG
159041 GCCAGGCTGG TCTCAAATC CTGCCCTCAA GTGATCCTCC TGCCTCGGCC TCCCAATGTG
159101 CTGGGATTAC AGGCGTAAGC CACTGTACCC GGCCTCCTCC TTTAATAGAC AGGGTCTAGC
159161 TCTGTTGCCC AGGCTGGGTA CAGTGGCGTG ATCATAGCTT ACTGCAGCCT CGAACTCCTG
159221 GGCTCAGGAG ATCCTCCTGC CCTAGTCTCC CCAGTAGCTG GAACTACAGG CATAGCACAC
159281 GGGGCTAATA AAATTAATTA GGTGATAAAA TTCACTGCCC ACTGATGACT AAGCTCTTTG
159341 GACATAAAAAG ACACAGACCT TGAAGGAAAA TGTGTCTACT TAATTTTGAA ACCCTATTTA
159401 TCAAAAAACA GGATGAAAA GCAAAATGCC ATCCACATGC CAGAAGATAT CAGCTATAAT
159461 AAGTTCCCAT AAATCAATAA GGAAAAGAAC CCAATAAAAA TTATTAAACC ACAGTAAATC
159521 ATGGGTAAAT CACAGAGGCC TGAAGGGCTA ATGGACATAC AAAAGAATC TCAATCTCAC
159581 TAGTCAAAATC AGAAAAGCAC AAATTAAGTA CACAATTAGG TACCATTTTA AATCTGTAAG
159641 ACTGTCAAAA TCATAAATTA TATAAGTAAA GACTCAGGGA GTTTTGAGG AGTGAGAGCT
159701 CTTATATTGC TTGTGGGGTA GAATTTGGAAC AATTTCAAGA TCTGTAGTAT CTGGTAAAT
159761 TATGATATGC ATCCCTCACA CCAGCATGTC ACTCCAAGGT ATCTCCCTGG AGGGAACATT
159821 TACGGGACAC AAGGAAGCAT GGATAAGAA GTTCACAGTA GTATTGTCTG CAACAGCAAC
159881 AACACAACAAA AAACCCAACT ACACACAAC TCAATGCCCA GTCCACAAG CAATGGATTA
159941 AATAAACTTC AGGCCGGAGA TGGTGGTTCA TGCCTGTAAT CCCAACACTT TAGAAGGCCG
160001 AGGCGAGAGG ACTGCTTGAG CCCAGGAGTT CAAGACCAGC CTGAACAAAA TAAAGAGATA
160061 GTGTTTCTAC AAAAAATTTT TAAAAAATTA GCCAGACGTG GCAGTGCTTG CCTGTGGTCC
160121 CAGCTACTGG GGAAGCTGAC GTGGGAGGAT TGCTTAAGCC CAGGAATTTA AGGCTGCAGG
160181 GAGCCATGAT GGGGCCATTG CACTCCAGCC TGGGTGACAG AGTGAGACCC TGTCTAAAG
160241 AGATAAGTAA ATAACAACCT TGCATTTTCT GCCACATTGC AAAATGGTGA GAGAGTGGTT
160301 TCTAGACTCT AGACTCTTTC TATGACTACC TTCTAGTTAT GAGATCCTAC AACACTCACC
160361 TAACCTCTCT GTGTCATATT TCCTCCTCTA TAAAGCAAAA ATGCCCCATA TAGAGAGGAC
160421 TGTGATATAA AACAAGAACC AAGAAAAGTA AAGCTTTTCT AATCTGTCAC AGACTAAAGA
160481 GTGCTCAGTA TATGTGAGTC ATTATTCCTG GTGCTGGTAG GAGTGTATGT TACAACTTTG
160541 AGTCAAGTAA TATGGTACCA TATATTAAGA TTAACAACAA CCTCGGCAAT CCCAGTTTGG
160601 GGTATGTTCC CAAAAGAAAT GAAAGCACCA GGATATAAGG ATGCATGGAC TAGAAAGTTA
160661 TTGTAGCAAC ATTGTAATAA CTAAGTTCTA AAAACAGCCT GAAGCTCCAT CAGTAGGGAT
160721 ATGGTTACAT ATATTTATTA TATTCTTATG GAATATTAGA CATAAAAAGT AACGAGTAAC
160781 ATAGAAGAGA CAGTGTATAT ATGTTACGTT TGTACAACT TAGGGAAAGA TATAGATCAC
160841 CCTACCTAGA GAAGTCAGAT TGGAGAGGGG TGGGAAAAAC CTTGAACTTT CTCCTTATAT
160901 CCTTTATATT GTTTGACTGA TTAATATGTA TTTGTTGCAT CTGCTTGAAG GCAATGTAAA
160961 ATAAAATAAA CATACATTTA AAAATAAAAA TAAAATTTAT TCCTATCACT TTTGTAATAA
161021 AGCTGGGCAC AGTGACTAAC ACTTGTAATC CTAGCACTTT GGGAGGCAGA GACAGGCAGA
161081 TCACCTGAGG TCAGGGGTTT GAGACCAGCC TGGCCAACAT TGTGAAACCC CATCTCTACT
161141 AAAAAATACAA AAATCAGCCA GGCATAGTGG TGCGTACCTG TAATCCCACG CTACCCGGGA
161201 GGCTGAGGCG CTGGAACCCA GGAGGCAGAG GCTGCAGTGA GCTGAGATTG CGGCAC TGCA
161261 AGCCAGCCTG GGTAACAGCG AGACTCCATC TCAAAAAAAA ATTTGAAAAA AGAAAAATTT
161321 TAATAAACAG TGTTTAAGAG GGGAGAAATA TTTAGTTAAA AGATAAGCCC ATTTAAGAAA
161381 TAGTTTCACT TGACCCGGAA GGCGGAGCTT GCAGTGAGCC GAGATCGCAC CACTGCACTC
161441 CAGCCTGGGC GACAGAGCGA GACTCTGTCT CAAAAAAGAA AAAAAAGAAA GAAAGAAAGA
161501 AAGAAATAGT TTCACTTGAA CCATATTATG ATTCCTTCTG TAAAAGATGA GAGTAGGCAA
161561 ATTGACTCAG TGAAATCCCA GCAAACTTA CACAAAGTCT TGTTCTTCCT TCCTGTCATC
161621 TGTATAGGAT GAAATACAGA GTGCTTTTGG GTTTTGTGTT GTTTTGTGTT TGTGTATTTG
161681 AGGGGAACAC AGGTCTATAA TTCTTTTCT GAAATCCCTG GAACAAAATG GGCTTTGCCA
161741 TTCAAATTAG TTTAGAAGTT ATAAAGGCAA AAAAATGCAT ATACTCTAAA GTTCAACCCC
161801 ATCATGGCCT AAGGCAGAGC CCTGTAATCA AATTCATCAA TATATCTGCA GCAAAACATT
161861 TATTCAAATT AAGTGGGATA AATAAAGACT TTTAAATAGT CTCATCTCAG TGCCGTTTCA
161921 GGTGCGCCAC TGTGGAAGAC AGACTCAAGG GTGGCCTTCT ATGATTCTCT CCTCTTGGTG
161981 TTCACACCTT CGTAAAATTC CTTGTCTTTG AGTGTGAGCA GGGCTTATGA ATTGCTTCTG
162041 ACCAATAGGA TATGGCAAAG ATGATGGGAT ATAATTTCTA TGATTACGTT TCATTATGTA

```

Figure 9 (Page 50 of 74)

139/162

```

162101  AGACTCCATC TTGCTGGCAG ATTTTCTCTA AAGAGTCTGT CTCCTGAGCT CTCTCTGAAG
162161  AAATAACTGG CCATGTTAGA AGCCCATGTG CAAAGAGCTG AGGGGTGGCC TGTAGAAGCT
162221  GTGGGCAACC TCCAGCCAAC AGCCAGAAAT AACCAGGGCC AAAGTCCTGC AACCATCAGG
162281  AAAGAAATTC TGCCTGCTAT CTCAGTGAGC TTGGAAGTGG ATTCTTCCTT AGCCTAGCCT
162341  CCAGATAAGA ACACAGCCTG ACCAACACCT TAACTGCAGC CTTATCAGAC CCTAAGCAGC
162401  AGGCCCAACT AAGCTGTGCC CAGATTCTCTG AACCACAAAA ATTGAGATAA CATATCAGTG
162361  TTGTATTAAG GTTCTAAATT ATGGTAATTT GTTTGTACTA ATAGATAACT AATATAACCA
162421  CCAAATCATT TCAGGTTAGG CCAGATTTTT GTAGCCAAAT GAATCATGAT AAAACTTTCC
162481  ATTTTCAGGG GTTTTTTTGA TTTTGTACTT ACGGATACAA ATTTGTGAAA GTATAGTCAG
162541  CACTGATTTA AAAAATCAAG GGAGCAGGAA ACTCAGTAAA TGGTCTAAC ATTTTGGAAT
162601  CTGTAAATTG GTTGTAACAT TTGTCATCTG TGTATCTAA GTCAAGTTCC TAAAATATGT
162661  GAATGATAGG TTATCATACT CACCTACTTT TCTTGCAATG CTCTAAGAGT TGGCTGAGCT
162721  ATTGATAATA AACACTATGA TCAGATCTAA TACCATGATG TGCTATTATG ATCATGTGTC
162781  AGTCACAGGG CTAAGCACTT TGTACATGTT GATGCATTTA ATTTTGATGA TAACTCAATG
162841  AAGTAGGAGC TGTTAATATT TTCATTTTTT AGAGGGGGAA ACCAAGTCAC TTGGAGTAAC
162901  ATGGCTAATA AGTGAAAGAA TAAGAATTTG AAAGGTTTGC ACAGATAACC AGAATGCAAT
162961  GCTCATCACA TTCACTGAGC AGTGAATCAT ACTAAGTAGA GAAAGTATGA AAGCTCTACT
163021  GAAATTAACT AAACAACCTC TCTGGCTGTG AGCCTGCCAA GGGACAGGTG GTAAACTTGG
163081  TTAAGTCATA AGGCCCCCTT TATCCACAGT ATTCAGGAAT TCTTTAGTGA ACATACCTTG
163141  ATGACTCCTT AACATTTTCT TCACATCGAA GTAAAGCTTG GAAACATTGC ACATAGTATG
163201  AAGTTCCAAG GAGACAGCCT CTGATGTTTC CAGCTTCACA GCCCAACTCC TAGAATAAGC
163261  AGAGGCGAGA GATTTCTTCA GAGGTGCATT CCATTCAATT CTATATACGC ACACCCCTCC
163321  CCTCTGCAT TCAAACAGGA CTTACCTGCT CAAAGTGTCA TTCACATTCT ATAAAGAAAC
163381  AAAAAGAAAA GGTGAGCATG GGAACATCGG TATTTTCATG GGCTTGTCAT GCAGGGCTAT
163441  TCTTCTTTGC TTTACCCGAA GAAGTAAAGA GAGTTACCCT AGTCTTAGTC TTAGATATTG
163501  ATGGATACTC AAACAAAGTA ATTCCACCA GTCTTAGGTA TTGATGGATA CCCAGATGGA
163561  ATAATTCTTA CCAGCTTCTG GGAGATTGAG CATGGCAGGA TGTTTATCAA CATTTGCATC
163621  TATTCTCATC CTTGCTGAAG TCTGAGGGCC AGGAGCTTTG TCCATGCTCC CTCTGTAAGG
163681  ACTAGCTTTT GGTGATCGGA TTTCTTTCAC AGTGAGCCCA GATTAGAGAA CACTTATCAT
163741  AAAGGTCCTT AGTGGTGAAT CTGTGCACAG CCCTGAGACT GGGCCACTGC CACTAAGATG
163801  GTGGTAGCAG GTATCACACA GTGGTAAAGC AATCATGCTA TACACTCAGC CTTACAGTAT
163861  AGTCACCAAT CCTGTTAGTT AGAACCAGAA TTAATGGCTC CAGATGTTTA TCTTCTTACA
163921  GATAAAGCTG TAGATTGTAC CATAACAGCT CTGGAGCAAG GGTTCTACAA GCAAATCAGG
163981  GAAAAGGTTA TCACTCATTT TGGCTGCCCC ACTTCATCAC CCATCAGTCA CCTAGTGGAG
164041  TATTTTCAGGA GAGAGTCAAC AACCAGGGTT CTCTGCACAT GGGCCAAGGA GGCAAAACAGT
164101  GGTAAATGTT ATCCCGTGGT TTCATTTGGC CAAGCTGTGT TCCCTCAGAA GTTTATTTTT
164161  CTAATTGACA TAAAGGTACC CTATAAATTA GTGAAGGCCA GCCTGATGGC ACTGATGTAC
164221  ATCTAAAAGA AACATTACTT TATCTTCCCA TGCTTCCTTA CCATTCTCCT TTAATAGCAC
164281  TATAACATAC CTTTTTTCCC TACTCCAAGT ACACAGCCTC ACCTGCAGCA ATTTCTGGGC
164341  TGAGCCCTGA CATTTTTTCT CCAGTTCCAG GATGTGGCTC TTGAGTTCAT TGCTCTTCAG
164401  CCCCAGACCA GCCTCATAGT CCCTCAGTCT ACTCAGAGTC TGTTGTTCTT CTTTCTCCAG
164461  CCTCCAGAGA TAAGACTTCT CTTCTCATG TAGGAAACAC TGGAGATTCT TAAAGTCAGA
164521  CCGGATTTTT TGTCTCTGAA TCTGTACCTT CTCCTGGAGT CAAGAAAGTA TGGTCAAAAG
164581  GTGGAAGTAA ACCAAATGTC CATCTATGGA TGAATGGATA AACAAGAATG AAAGTCTGAC
164641  ACACGCTACT ACATGACAAG CTTTGAAGAC ATTCAAGCAA AATAAGCCAG AAACAAAAGG
164701  GCAAATATTG TAAGACTTTG CTTATACAAG GCATCTGGAG TAGTTAAGTT CATAGAGACA
164761  GAAAGTAAAA TAGTGGTTAC AAGGTGTTGG CAAGACCAGA AAATGGACAG TTATTGTTTA
164821  ATGGGTAGTG AGTTTCAGTT TAGAAGATGA AAGATGAAAC TGAGTTGCAG TTTGGAGATG
164881  GGAATGGTGA TGGTTGCACA ACAATGTAAC AATGTAAAAG CACTTAATTC TACTGAACTA
164941  TATACTTAAA AGTGGTTAAA TGCTTAAGTG TTATATATAT TTTACACAAA ACACACACAC
165001  ACACACAATC AGCCACTGGG ACATTATTTT CTCATGAGTC ACTGAAGCTG GAAGAATGTC
165061  CCCAGTTTCC TGCTGCAGAG TCATGTGTGG GAGGCAGGCA CTCAGATGTG GAAGAGGTTG
165121  CCTCAGATTC CTTATAGTCA CCCAATTAAT TTTCTTGTTT TTCAGCCAAG ACACAGGAGA
165181  AAGCTGGGTT AGGAGTGCTA GATAATTTAA TTGTGAAACT AGGGCCAAGT TCAAACACTT

```

Figure 9 (Pag 51 of 74)

140/162

```

165241 TATCAGTTAC AAGGATAAAA AGAGGTTTTT ACTTATGATT TAAGAAGTTA GATTTCTGAG
165301 TTGGAGCGAT TTTCTTGAAG TAAAAGCTTA TAATGAACAT CACCCAGACT GGATTTTAAG
165361 ACAACCAGGC TGGTAAGAGG GTCCATAATT CTTGGCAGGG GGAGCTTTGA GTGTGACAGG
165421 CATTTATTAT GGTTAACTGA GAAATACTGT TCTACTACCC TAGGGTCATC TTAAGCATTC
165481 CTATGTGTAA GACTGACAGA AATCAAGTGA AACTCTCATC TGAGGAGATG TAAAGTTGCA
165541 ATTTCCATTA GTGCTGTCTA AATTAATGCA GTGGGAGTGT GTATTTCAGGG CAATTTGAAT
165601 CTATGTTCTT GGATTGCAGT CTTCAAACCT GGCCCAAATA AACTCTCTAC TTATCTTAAA
165661 AAAATAAAAA TTAAAAAATA AAAATAAATT CATACAGTGT TTTGATGACT ATGATATAGA
165721 AGAAGGGTCT TTGACTTAGG ATGAGGTGGA ATTTTTGTGT AGGAGACAGG TGCAGCTTTA
165781 ACTCTTGAT AGACGGGTTT TCATATATGT TAGTTACAAT CAAGGTCTTC CCCATTGCCC
165841 AAGATCCTAG AAATGGGGGA AGTAAGAGTG TACTCAGGAG CTCAAGAGCA ACATCCACAA
165901 ACAAAGATCA GGGTAGAGGT TAGAGAGGAC TCCTGAAAGA GAGAAAATTG GTAATCAGCT
165961 TGTGGGATTT TACTGCAAGC TAGTGAATTA TATAAATATA AAGATTGGTG CAAAAGTAAT
166021 TGTGGTTTTT GCCTTTACTT TAATGGCAA GACCGCAATT ACTTTTGCAC AAACCTAAAT
166081 ATTTCCATAA AAGAATGTGG CTCTGATAAT GTGGAGGTTA GTCAGCCACG GAAATAATCT
166141 GAAAGTTTGT AGTTGCAAGT GTGTAGGTTG TTGCATTACT TGTGATGTAC TTATAAATCA
166201 AGTATAGGCC GGGTGCAGTG GCTCACGCCT GTAATCCAG CACTTTGGGA GGCTGAGGTG
166261 GGTGAATCAC GAGGTCAGGA GATCAAGACC ATCCTGGCCA ACATGGTGAA ACCCCGTCTC
166321 TACTAAAATA CAAAAAATTA GCCAGGCATG GTAGCACATG CCTGTAATCC CAGCTACTCA
166381 AGAGGTTGAG GCAGGGGAAT TGCTTGAACC CGGGAGGTGG ACATTGCAGT GAGCTGAGAT
166441 CGCACCCTA CACTCCAGCA AGACTCCATC TCAAAAAATA GTAATAATTT AAAAATAAAT
166501 AAATAAATAA AGTATATTTT TTTTCATCAG TTCATGAGCT TGAGTAGTAT GAATTTCAAT
166561 CTGGAGTGAT CCTGTTTTCT AAGTGTTTAC AAAGCTTGGT TTCTGTACCT GTAAAGTTGA
166621 GAGCCAGATG CTCCACTGTG GTAAAAGTGC CAGGGTAATG AGTTGAGGCC TGCAAACCAG
166681 GTTTTATTTT AGGTATTTAA AGTTTGTAGC CCACTCGATG CTTTTTCTAG GTAAATAGTC
166741 ATACTAATTC TGCTTCTTCT GACTGAAGTA TCAGGAATCC CAGCCAACTA CAGTTTAAAG
166801 ATGGAAAGAT TGGTGCTAAA TACTCATGGA TGTAAACCTG GAACCAGGGG CATAAGTACA
166861 AATAATGGTT TCTTCCTTGG GTTTCATTTT TTCAATCTGG TTTAGTGAGA ATAAATCCTC
166921 ATTGTGCTTT TCCTCAATCA TCCCCTATGC CTAAGCTCTA GAATGGAAAA TAGCTTGAGA
166981 TCAATGAAGT CAGATTCTTA CTTTCCATTT AGTTATTTCG ATTGCTGTGG ACAGCTTCTG
167041 CTCCGTACAT CTGTCTTCAA GTTGCTTCAG TTTTGTGACA GCTTTCTGGA GCTTTTCTTG
167101 AAGGAAAAAT TTGATAAGTG AAGCCTATTC AATTTGACTC TTCATTAGGG ACCTAGGGGG
167161 AATCCCAATC TTCTAAGATA TATTTGAATA ATAGTGAATA TTTATAGAGT CCTCATTGTT
167221 TTTTGCTAGA GAGCATGCTA AAGGCTATAT GTGCAGGAAC ATACTGATCC CTTGGCAAC
167281 CCTGAATAGT TGGTAGGATT TTAACTTCA TTTCTGTGCT GTAGAAAATG AGACTAAGAA
167341 AGGGGTAAAA TAACTTGCCC AAAGGGCTAT GACTGCCAGG TGGTGGAGCA ACAATTGCAA
167401 TCTCATCTGC TGACCCAGAG CCTGAGCTAT GTCCACCACT AGAGTCCTGC CAGGAAAAAG
167461 TTGGATATAG AACAAGGTAA TCATCATCTA AAAGATTTTG TAAAACAACA TGCTGAACCA
167521 AGCAAAACCA ATACCAAGTG TTGGCACACA TGAAATTTTG TGTCTTATGA GTCAGGAAAA
167581 ATCAGGATGC CAGCTGGTTA TTAGAAACAG TTCATGGAAG AGGGGAATTC TGGTATCTTT
167641 TGAACAATGG TATCATGAAT CCAATTTAAA ATGATTTAGT ATTCATGTCA AGCTTTTAGC
167701 TTATTCTTCA AAACAGTTTC TCATATTTCT ATTGAAAGTG ATTTGAAGCT GACCCAAATT
167761 GCTAATTGTA GTCAATGCTG AAAGAATTGT CTCCTGTCCT CTGTAAACCC AACAAGTATA
167821 CTCATTCATT CTCGAGTGTT CTCAGGAAAA GGTTCATGT AACTGTTTTA GCAAAAGATG
167881 ACATTGTCTT TACTATATGC CAAGTGCTAT TCTATGCATT CTATATTTTA ATGTCCTCAA
167941 AGCTTATAAC CACCTCCTGT GTATGTGTTT TAGGGAGGGA GGACACTGCT ATTATCCCCA
168001 TTTACAGATG GAGAAACCA GGTGTGAAGA CATTAGTAA CGTGCCCAA ATTGCCCATC
168061 TAGTAAGTGA CAAAACCTCA TTTCAACATA AGCTGGTTCC TTTTCTTACT ACTTGGTGGA
168121 AAAGTAATTC AAATGGGAAT ATGATCATCG CAGTTATTAG CTGCTCCATG GAGTTTAAGG
168181 AAGAGCTGCC ATGAGCTGAG TGGTGGTCAT GATTGACATG TCCTTAGAAG GACTTAGAGC
168241 CTTCATACAA GACCACCTCT GCCTCATGGA GGACAGAATA AGGAGCCTGA CACTGGAGAC
168301 AACATTTTCC TCAAATTTAG GCAGGACAGA GAAGGAAAAA GGACATCAGG ACTATGCCCC
168361 TTCTCCATG CTGCCAACAG CAAAGTCCCA CCTTCCTTAA TATGCTTTCT GGCAAGAAAT
168421 CTGGATGGTA CACAAAACCT CTCCCTCTGC TTCACCTTCC ACAACCAAGC ATTTCCAAAT

```

Figure 9 (Page 52 of 74)

141/162

```

168481 CTTTGACTCT TCTTCCTGAA TCGTGCTTAA AATCTGCCCT CTCCTCCCTT TCTTATACGG
168541 ATAGTTTGAA TTTTACTCCT TGATATTCCT TTTATCATAG ACATGCCACA GTAGCTGGGC
168601 ACAGTGGTTC ATGCCTCTAA TCCCAGCATT TTGGGAGGCT GAGATGGGAG GGAGACCAGG
168661 GGTTTGAGGC CAGTATAAGC AAGAAAGGCA GACCATGTCT CTACAAAAAA TAAAAAAATT
168721 ATCCAGGTAT GGTGGGGCAT CCCTGTAGTC CTAGCTACTT GGGAGGCTGA GGTGGGAGGA
168781 TTGCTTGAGC CCCAGAAGGT TGAGGCTGCA GTGAGCCGAG ATTGCACCAT TGTACTCCAA
168841 CCTGGGATAC AGAGCAAGAC CCTACCTCAG AAAAAAAAAA AAAAAAAAAA AAAGTAGAGG
168901 TACCAGAGTG ATATTTTCAA TGTCACTGAC CCTTCATTCC CCAAATGAAA ATCCCCCAAT
168961 AGGTGTTCAA TTTTACGTG TCCTTCAGGA GTTACTTCTA AGATGAACCA CTCTCTACCC
169021 TAAATGTCCC TCCCCACCAC CAAAACCAGG GACCTCCAGG CAGACATTTT TGATGGTTTG
169081 TTTTCTTTAC TAGACTGTAG ATACCTAAAA GGTGATGGGT CTTTCTTCCC TGTTTTCAGG
169141 CCCTACTGCA TGGCTTTACA TATTGTGGTT TTTCAAATGA TATTCATGGT GTGAAACAAG
169201 AAAAAATGCG GGTGTTTGGT TTGAGAACAA CCTGTTCTAA AGCAAAAAGA AATTCATCAT
169261 AACACAAATG GATAGAGATA AGAGTCCAAC CATCCCATTG AAGGTCAGGA TGGACAGTCT
169321 AGATAATTGA GCAAGAAATC ATCATAAACT ATTTTTCAGA AGAATGACAT GATGAAAGCT
169381 GTATTTCCAA GTCATAATGT TAGGTTTCAA GTTAAATCAT CTCAGCTCCT GGGGAGCAGG
169441 ATAAGACTTG GTACTTACCA AAGCTCCCGG GCCACACAC TCACCTTGTA GCCCTGGCAT
169501 ACGTCTTCAA CAAGAGCTGT GGTGTGCCCT TTGTGCTGTG GTGCCCCTC ACACGCCAG
169561 CAGATGAGCT GCCCTCATC TTCGCAGAAC AGGTGGAAC TCTCTCCGTG TTCCTCACAT
169621 GACATTTCTT GATCCGTCTC TTTGAGGGCT TCAATGAGGC TTCCAGCTG CTTGTTGGGT
169681 CGGAGGCTAT CCATATGAAA TGGAGCCCGA CACTGGGGAC AGCAGAATGT CTCCTGCCTC
169741 AGTTGCTTTT GGCTTGGGTT TTTAAAGAAG TCTGTTATAC ACAAGTGGCA GTAGCTGTGT
169801 CCACAGTTGA TGCTTACTGG GTTCGTCATC AGGCTCAGGC AGATGGAGCA GGTGGCTTCC
169861 TCCATCATCT TCTTGGTGCT GGTGGTTGAG GCCATAGCTT TTATTGAAAA GCTCCAATAT
169921 TGGCTCTAGA GATGGAGATG AAGCAGCCAG AATTTTCCAC CGTGATGAAA ATACACCTCA
169981 CCTGCACCTC TATGTGATGA GCTGGCTGCA ACTGACTTCC ATAGGTCTTG AAGGTTTTCC
170041 TTCCAACCCC TATTATCTCA TTTTGTATTG AAGAAAAGAG GACCTAAAAG GAAGAAGTTG
170101 AGGCTGAGGT TGTTTGGGCC ACGTTTGAGA ACTGCAACCC AAGTGCAGAG TTTCAAGTTG
170161 CCCTCATTAG CAAGCAGTTA CAAGTGGTTG TTTAGAGGAA AAAAAGCAGT TTTAAAGCAG
170221 TTTTAAAGTT GTTTGCCAAG AATTTACATT AAAATAGCAT AAGCTTTTGA CTGGCTATAC
170281 ATTGTTCTTT GTATTACAAA TCTCGGGAAT ATGTAGGTAA TAGATGAGGC AGCCAGTCAG
170341 GAACAAAATG CTTTTAAACA TGGGGTCTTA ACTGAAGACC TATACTCCTG CCTCACTTGT
170401 CCTGATAAAT TTTGCATACC TCACATAGCT CAGACTGCTC TAAATTATTT CATTATTTTT
170461 CTTTTCTCAG TCTTCTAACT TTTTTTTTTT TTTTAAATGA GACGGAGTCT CACTCTGTCA
170521 CCCAGGCTGG AGTGCAGTGA CGCTATCTCG GCTCACTGCA CCTCCGCCTC CCGGGTTCAA
170581 GCGATTCTCC TGCCTCAGCC TCCCGAGTAG TAGCTGGGTC TACAGGTGTG CACCACTACG
170641 CCCAGCTAAT TTTTGTATTT TTAGTAGAGA TGGGGTTTCA CCATGTTGGT TGGCTAGGAT
170701 GGTCTCGATC TCTCGACCTT GTGATCCACC CGCCTCAGCC TCCCAAAGTG CCAGGATTAC
170761 AGGCATGAGC CACCGTGCCC AGCCTCTTTT TCTTTTCTTA TAAGACAAGT TCTCGCTCTC
170821 TTGCCCAGGC TGTAAGTGGAG GGCAGTGGCA TGACCACAGC TCACTGCAGC CTCGACCTCC
170881 TGGGTTTAAAG CAATCCTCCT GCCTCACCTT GGCAGAGTGG CTGGGACTAC AGGTATGTGC
170941 CACCATGTCC AGCTAAAGTC TTCTCTCCAG AAAGAAGAAA TGCATTGGAA TTTAGAGGAT
171001 ACACAAACAT CTAGCTGTAT AGCTAATACA GTAGCCACTA TCATGAGTAG GAATTTAAAT
171061 TTAACCTAAT AAAAATTAAA ATGAAAAAAT TCAGTTTTTC TGTTCCAGTT GCCACATTTT
171121 GATTGCTTAA TAGTTGCATG TGACTAGTGG CTACATAACA GCCTCAATAT ACAACATTCT
171181 GTTATCACAG AAAGTTACCT TGGACCAAGT GCTGGGAGAA GCAATGCAGG CTTCTCACA
171241 AAAGCTGTAA AAGAGAGAAC TCAGGGAGTG TGAAACTCTT TCCTATTCTA GTTAACTTCA
171301 AGAATAATTG TTACCAGGCC AGCACGGTGG CTCACGCCTG TAATCCTAGC ACTTTGGGAA
171361 GCCGAGGCGG GCAGATCACC TGAGGTGAGG AGTTTGAGAC CAGCCTGACC AACATGGCAA
171421 AACCTCATCT CTAATAAAAA TACAAAAAGT TAGCTAGATG TGGTGGTGCA CACCTGTAAT
171481 CCCAGCTGCT CAGGAGGCTG AGGAAGGAGA ATGACTTGAG CTCCGGAGGG GGAGGTTGCA
171541 GTGAGCCAG ATTACACCAC TGCCTCCAG CCTGGGTGAA AGAGCGAGAA TCTGTCTTAA
171601 AAAAAAAAAA AAAAGAATAA TTGGTACCAG AATTACTCTT TGTAATTAGT AGTAACACTT
171661 ATGCAATTGG GTGATCTGTG ACAGATTCCA TTGAAGGAGT ATGGGGAGCT TCACCCCAAT

```

Figure 9 (Page 53 of 74)

142/162

```

171721 ATATGACTCC CTGGTATAAT GAGTATTTTG AATTAAAGGC CCTTAGAGAT CAGCAGATGC
171781 TGGAAGAGAC TTTTCCCCTA TCTACATAAA GACCAGTCAC ACTAGACAAAG AAGAACAATT
171841 GTTTTTCCTT CCAACCCCTA TTATCTCATT TTGTACTGAA GAAAAGAGGA CTAAGAATGT
171901 AACCAGACCT AATCAGACAC TTTCACAAAA TAATGTCTGT CTCTCAGGCT CATTCATTTT
171961 CCAAAGAGAA CCATTTACAA GTTAAACTCT GTTCCTCCAT TCATTCATCC TCCCAAATAT
172021 TCATTTATTC TCCCTAGTAA TCATTTACTG CCCCTCAAAG AATTACCTAT ATTCTCCTGA
172081 TATCACCTT CCCCTCTGAA ATAAATATGT ATACATGTAT AAACGTTATA CATACATATT
172141 TATACAGTAT ACATACATAT TTATACATAC ATACATATGC ATACATATTT ATATTTATGT
172201 ATTTATACAT AAGTATTTAT AAATAAGGCT ATATAAGTAT CTACCCCAT TGGCAGAGGG
172261 GGTAATCACT CTGTGATTCT AGCCCATGTA CTGTGTAATA AATTTGTATG CCTTTTCTCC
172321 AATTAGCCTG CCTTTTGTGA GTCGATTTT CAGTGAACTT CAGAAGGCAA AGGGGAAGTG
172381 TTCCCTTGGC TCCTACACCA TCATGACAA AAAATTTGAC TCCACCTCGA CCCCCCAT
172441 CCCCCACAAA GAACAACAAC CAACACTGGT TAATAAGGTC GGTTGTTTTT TGTGTTGTGTT
172501 TTTGTTGTTG TTGTTGTTGT TGTGTTTTT GCTTTCAGGA GCAGAGGTAT AATAGGCAAA
172561 AGAAAGAGAA AGGAGAATAG TGAATACCTT TTCTGCAGAG AGGGGTGCTT AAGTGGGACT
172621 TCCCTGGCTA ATAACGCTT GCTAGAGACC CAACCAGGAG GATAATGGAA GCAATCAAGG
172681 CAACCAGAAC AACCAGAAGA ACCAGTTTAT CCTTTTGTG CCCTCTCCCT AAAGTGAGGG
172741 AATAAGAATT GGAAAGAAGG CTGCAGAGCA GAGGGTTTGC TCCTGAGGAG CAGTTATTTC
172801 TATGGGATCA GAGCTCCTGC AGAACTGGGG AGTTTACTTT TACTATCTCT TCTCCAGGAC
172861 AGGACCTATC TCAAGAGACA TGTTGAGAGT GATTGCAACA TAAAGAGTTT GCAGACCCAA
172921 GGAGGTAGGG AAGGCAGAAA GAAGATGGGG GAGGCCAGGG ATAGGCAACA GAGGAGTGAC
172981 CAGGAGCGAA AAAGCCTGCC TCTTCTGAGA ACCTAGCTGG GCTCTCCCTG TACCCCGCAT
173041 CCCTCCCCC CGCCCGCCCC CACACCCCTA CTCTGGGAG CTCTCTAGG ACAGGGGCAG
173101 AGTCAGGAGG AAGTTTGAAG AGTGCCTAGA ATAAAAACA GTAATTTAAC TACAATTACC
173161 GGGTAGGCTG TTTTCTCTC ACAATTTGAT CAGTCTCTTG AAGCCACACA GAATTTCTTC
173221 TGAAGACGTG TATTCCTTGG CAGGCTATTT CCTCCAGTGA TACACCAGGC CCCTCTCTGC
173281 TGGGGTCACT GCTCTTCTGG GGAGATGGGG CTCCCTCCT TCCAAGGCTC CAGGGTTCCT
173341 GTCCTGGGCC CCACTCATCT AAGTTCTGAA TCTTCTGAGA TTTGGTGTA AGTCTGGTGA
173401 AAGAAAGAGC AGGAAAGAGG TGAGAGCTGT AAAACAAAGA AAGTCCTGAC CATTTTCAGA
173461 GTTGAGGGG CCCTGCTGTC ACGAAATATA TTCCCCACCC CACTTGCCAT CAGTACACAC
173521 TCACATATCC ACTGAGAAAA CCTTAGCCTG GACCTTTTCC GTAACCTTCA CTGCTCAGAC
173581 ACTTACATAT TCGCTGCTAG TCCCTCTGT TGCTGCCACT TCCTGGGTCA GGAAGTTAAC
173641 TCAGACCGGA TTAACTGAG AAGTGAACT ACTGTGGGAG GCGGGGCTCA TAAGATTTAG
173701 GAGAAACTA GTGACGTTGT TCATATCATT TGCACTCCGC CTCTCCGGTA AAGGAGGGGG
173761 AAACGTAGGA AGAAAAATATC CTTCTTTTAC AGCAATAAAA AGAAGGAACC AATTAATAAC
173821 CCTGTAACT ATCATGTGAC CCCACACAG AGTATCTAAA AACAGGAAGC CTGCAGAGGT
173881 TCAGTTCACA GACTCTGATT TGAGATCTTT CTACTTTTGC CACCAACTCC CTGAGGAGTC
173941 CTTAAGCCTT CTTAGCTGAT GTTACTTCTT TTGCTATTTA TGGGTGCTT GTGGTTCTAT
174001 AACTGCTCTG AAGGGTGTGG TGGAAAAAGG GGTGGTAACA GCAGTAGGAC TCATTGGCAT
174061 CACAAAATTC ATCTGAGTCA GCTTCTTAT CTTCTCTGTC CCGTCTGTG TCTTGTTTTT
174121 CTCCTTGCTG TCCTTCTGCA GGACTCAGAT CTTCTTCAAT AGCGAGGGTC AGCCAGGATA
174181 GAAAAAGGGA GTCAGTAGTG GCCCAGCAGT GAGTGCCCCC AGCTTAGAGC TGTGTGGGAT
174241 CCCTGGGACC ATCACTCTGC TTTGTGCTTT GTGGAGAAAA GGCTGTGGGG TCCAGGGTCA
174301 AGTCCTTAAT GACTTAGCTC CAGCTTCTCC ACTTCAAAAT GAAAGGAAAA GTACTATCAC
174361 CACCCGTTAG AATTATTATT TCATGGGGAA AAAAGATGGA TTAATATCTC ACAATAAGAG
174421 CTTGTCACAT TTATAAGTCT CAGGTGTAAG AGGCATTTAT GATAACAACA TAATAAATGC
174481 TGGCTTAAGT AGATGCAGTG GTCCAAGGGA ACCAGTAAGG GGAGCTCAGG ACACAGGTGG
174541 GAGGAGAAAT TAACTTGAA TTCTGGGAGC CACTGGCCTG TCTGGGCCCC TGGCCTGCCCT
174601 GCTGACCCTG ATAGCCAATG GAACATGGAG TTTGGCCCAG CTGCAATCCC TCTGGTCCAA
174661 CTACTCAAAA TAAAGGCAAG ATTGGGAAAC ACGTTCCCTT CTTCTATAC CAAGCAGAAG
174721 ACTCTCAGC ACTGCACCCT CCTGGGTGCT CACAGAGCCT TCTGTTGTTT TGCCACCTAC
174781 GATTCATCAT GCCCTGGCAT GATGGTTGCA GACCCCATGC ATAGCATGGG ACATTCTACT
174841 CCTGAGGCAA CCAGCACACA GAGAGAGGAG AAAGAATGAG CCCCTGAATC CTTGGTCCCA
174901 CGATGAGTCC TTGCAGATAT CTACAACTTT CATGTGTGTG GATGTGACTC TGTACCCAGG

```

Figure 9 (Page 54 of 74)

143/162

174961	CATGGCTCAT	TCCAGATCTG	TCCTATTGTC	AGAGGTGTTT	AAACCAGAAT	GACTCCATTT
175021	TGAATGGGGG	CTAGGTAAAA	TAAGGCTGAG	ACCTACTGGG	CTGCATTCCC	AGGAAGTTAG
175081	GCATTGTAAG	TCACAGGATG	AAATAGGCAG	TTGGCACAAG	ACACAGGTCA	TAAAGATCTT
175141	GCTGATAAAA	CAGGTTGCAG	TAAAGAAGCT	GACCAAAACC	CACCAAAATC	AAGATGGCAA
175201	CAAGAGTGGC	CTCTAGTCAT	TCTCATTGCT	CATTATACAC	GAATTATAAT	GTGTTAGCAA
175261	GTTAGAAGGC	ATTCCCACCA	GCTCCATAGT	GGTTTATAAA	TACCATGGCG	ATGTCAGGAA
175321	GCTACCCCTAT	ATAGTCTAAA	AAGGGGAGGA	ACGCTTGGTT	CTGGGAATTG	CCCACATCTT
175381	TCCCAGAAAA	CATATGAATA	ATCCACTCCT	TGTTTAGTAC	ATAATCAAGA	AATAACTGTA
175441	AGTATCTGTA	TTAGTCCATT	TTCACACTGC	TGATCCAGAC	ATACCTGAGA	CTGAGTAATT
175501	TATACCAGGA	AAAAATGTTT	CATGCTCTTA	CAGTCCCACG	TGTCTGGGGA	GACCTCACAA
175561	CCACAGCAGA	AGGCAAGGAG	GAGCAAGTCA	GGTCTTACAT	GGATGGCAGC	AGGCAAAGAG
175621	CTTGTGCAGG	GAAATTCCTT	CCTATAAAAC	CATCAGGTCT	CATGAACTT	ATTGACTATC
175681	ATGAGAACAG	CAGTATAAAT	TACTCAGGGA	AAGACCTGCC	CCCATGATTC	AATTACCTCC
175741	CACCAGGTCC	CTCCCACAAT	ATGTGGGAAT	TTAAGATGAG	AGTTAGGTGG	GGACACAGCC
175801	AAACCATATC	AGTATCCTTA	GTCCAGAAGC	TGATGCTCTG	CCTGTAGAGT	AGCCATTCTT
175861	TTATTCTTTT	ACTTTCCTTG	TTTCACTTTA	CTGTGTAGAC	TTGCCCCAAA	TTCTTTCTCA
175921	CACGAGATCT	AAGAACCCTT	TCTTAGGGTC	TGGGTGGGGA	CCCCCTTTCT	GGTAACACTA
175981	TCAAAGGATC	AGGAAAAGGA	AGCTAGTGAA	TGCTAAAAAG	GAAACAAACT	ACCATTACCA
176041	ATAATAACAG	CAAGACAAAA	GCAAAACGGA	TTGTGACAGC	TGTCCCCTCT	CACACCTGTT
176101	TCCCATTGCA	GGAAGGAGGG	GCTGGTTCAT	GCACAGAGTG	GCCAATATTA	GACACGAGTA
176161	GGGGGTGCAG	ATGAGACTTC	AGGAATATGT	TGACAAAGGC	AGGCCCTAGG	AGAAATCAAC
176221	CTGAACATATC	CCCAAGGAGG	AATGCATTAT	CTCTAATATG	TAAAGTTAGG	CTTGATCCTG
176281	TGATTATGGG	ATATAGGAGT	CCAAAGACTC	ACAATGGGAA	GTAGGTCACT	AGAGTCTCCT
176341	TCAGAAGCTC	TGTACTGTGT	GTTCCCCTCT	TGGGCAAGAG	TCAGCACTCA	GCTATTCCTA
176401	GAATGCCCTT	CCTCAACTCC	TTCAGATTTT	GCCTCTCAAC	TAACCCCTATC	CTGACCCTTT
176461	GTTAGCAAGT	GTACCCCTCT	CTCCCTCCCA	AACATTTTCA	AATCTATTTT	GTTCCCATGG
176521	CACTTATCAC	TGAATATTTT	ACTAATTTAT	TTTGTTTAGT	GTTTGCTTCC	CTCATGAGAA
176581	TGCAAAGGGA	TGGATTTTTT	TCAATATTGT	TCAGTATGTA	ATCCCAGTAA	CTAGAATATT
176641	TCTAAGCATA	GTGATGTGCA	TTAAATCAAA	GAGTAACTTT	CTGAATTGCA	CTAAACACAC
176701	ATCACAAGAG	GTGTGTGCAC	ATATGTGCAT	GATGCACGTA	GTGTGGTGTG	GGTGTGTGTG
176761	GGGGTATGTG	GTACTGTGTG	TGCTGTGTGT	GGTATGTGAT	ACATAGTTTG	TGTTAGTGTG
176821	ATGCATGTGA	TGTGGTATGT	GTGTGCGTGT	CCATACATAT	TAGGGGTGGC	GGGGATGTTA
176881	ATATGTCAAA	TGGTACTAGA	AAGTATCAGA	ACTCATGGTG	CTTACTGGTT	TCCCAGAGAG
176941	CTGCTTCTCT	CCCACCTGTA	GGATATACTG	ATGGTTTGGA	CAGAGAAGAA	ATAAAAAGAA
177001	GGCTGTGACC	TACTGGGCTG	AGGAAATAAA	AACGAAAGTA	AAAGAAGAGC	TGGGAAAAGA
177061	GAGTGGAGGG	GCCAAGGGAA	ATTTCCCTTT	TGGCTTCTGG	GGAAACTTTG	CTGAAAAATC
177121	AACTCACAAA	TTTATTAACA	TGTACACAGG	GAGAACCATA	GAATGATTAT	CCACTTCCCCA
177181	AGAGGGCTTA	AAAGCTTATA	TATTATCCTG	GCAAAACAGA	TTATGGGAGG	GGAAGAAGAG
177241	AAACTCTGTT	GATGGGATTA	CTGTTGCGGA	TTTTTGCTCC	TTGCTCAGC	TAGGTCGGGG
177301	TTTTTGCTCT	ACAGCCAGGA	AGAATTAGGC	ATGCAGCCAT	CAAAGAATGA	GTGGAGTAGA
177361	ATTTATTAAG	TGAAAGGAAA	GCTCTCAGCA	AAGACAAGGG	TCCTGAAAGC	AGATTTCTGG
177421	TTTGCTCTTC	ACAGTTGAAT	ACTAGGGCTT	AAGACTCAAA	TTCTGACAA	CTCCACCCTG
177481	TCCTACCAGT	GCATGCAGGC	CTTTAGACTG	AGCTACTCCA	TATTGATTAA	TTTCTGTAAC
177541	TGCGCATGTG	TTAAGGAAAG	GAATCATCCA	CTGCAGGCAT	GTTTAGGCAA	GCCCCCTGTG
177601	CAAGTTCCCT	TATCTGCACA	AAACATCCGG	TGTAAGCACT	TGTGGGGCAG	GTCAGAGGTT
177661	CTCTGGGTAC	CATTCCCTTA	CTGCTCGCCT	AAAGCAAGCT	GGCCAACTCC	TTTCATTACT
177721	AGGGAGAGTA	AGTAGATCAG	GGAACAGAGA	TTAACTTGAA	CATTATCTTG	TGAAAGTCCG
177781	TTCGGGCATG	GTTACATTCT	TGGTCTTACA	GGAAGGGTAA	ATAAAAAATA	TTGCTCTTTT
177841	TGGTGGGTCT	GGATCTTAGG	TAGATAAAGA	AACTTTAATT	CCACGATGTG	TTTTGGTAGG
177901	GATAGTTGGT	GGCAGGGATG	TCAGAGAGAC	TTTGAGGCTT	CTTCAGTTCA	ATATGACCAA
177961	GGGCCATATA	TTAGGGTATC	AATTTCTGAG	CCCCAACAAAG	AGCTTAGGAG	AGATGTGATA
178021	GCATCACAGT	GTGAAAGCAA	TTTTTTGTCT	GTTTTTAGAG	ACAGGCTCTT	GCACTGTCCAC
178081	CCTGGCTGAA	GTACAATGGT	ACGATCACAG	CTCACTGTAA	TCTTGAAGCT	GGTTCAAATG
178141	ATCCTCCCAT	CTAAGCATTT	CAAAGTGTTG	GGATTACAGG	CATGAGCCAC	GGTACCCAGC

Figure 9 (Page 55 of 74)

144/162

178201 CTGAAACTGC ACCCACTTTC TGATAAACTT TTCAAATGAC TAAAGGGGAG AGAGTAAGCA
178261 CTA CTCTCAGAG GTAGGAAGAA AGGACACAGG ATTATAGGAT TAAACAACA ACCACCAAAA
178321 AAAACCAGAC CGGTGTGGTG GCTCACACCT GTAATCACAG CACTTGGGGA GGCTGAGGTG
178381 GGGGGAGTCA CTGGAGGCCA GGAGTTCGAG ACCAGCCTGG CCAACATAGC AAGACGCTGT
178441 CTCTATTAAA AAAAAAAAAAT ACCTGCCTTG AGCTAATCAG AATCATGGAC CCTGACAAAG
178501 GATGTCCCAA AGTAAGTCTT AGCATTTTTT TTTTTTTTTT GAGACAGTCT CGCTGTGTTG
178561 CCCAGGCTGA AGTTCAGTGG CGTGATCTCG GCTCACTGCA ACAGCTGCCT CCCAGGCTCA
178621 AGCAATTCTC CCTGCCTTCA GCCTCCCAAG TAGCTGGGAT TACAGATGCC CACCACCACG
178681 CCTGGCTAAT TTTTGTTTTT TTTAATAGAG ATGGGGTTTT GCCATGTTAA CCAGGCTGGT
178741 CTTGAACCTC TGACCTCAAG TGATCTGCCC ACCTTGGCCC CTCCATAGTG CTGGGATTAC
178801 AGGCGTGAGT CACTGCACCC GGCAAAGTCT TAGCATTCTT TACAAACAGT TTGTACCCGT
178861 ATCTCTAAAA GGGAGTAGTG AATTTACCC CAAAATATGG CTTCTGATA TAATGAGTAT
178921 TTTGAATGAA AAACCTTAG AGATCAACAG AACTAAAGA GACTTTTCCC TAGGTACATA
178981 AAAATAGGAT GGCCCCACCA GCGAGAACAA TTGTTCTTTT CTCCCTCCCT GTTATCTCAT
179041 TGTGCATTAT AGGAAAGACC AAGAATGTAA CCACACCTGA ACAGACCCTT TTATAAGATA
179101 ATCAGTCTCT AAGCATCATT TAAATTCCAA GGAGAACTAT TTACAAATTT ATCTGTCTCT
179161 TGATCCAATT AGTCTCTCCT GGTAGTTACA TATTGCCCCT CAACAGAATT CCTCTTCTTC
179221 TGTTTTCCAT AACCTATTTT GCAAGGATCA AGCCCTGTG ACTTCTTCAA CTTCAAGTTG
179281 GCATATAAGC TTCTAAATTC CACTGGGATA TTGGTACTAT GTGCATGAGG AGAACCACAG
179341 AGTAATTAAA TTGTAAAGCC TTTTATCTTA TGAATCTGCC TTTTTTTGTG TTCATTTTTT
179401 AGCAAACTT CCAAGGGCAA AGGTATAAAA CAAAAATAAA ATTCTAAAGC CCCCCAACCA
179461 TCTGAATAGA CTTTCTCTTC AGTCAGGCTT CTTAAATGT AACCTGAAAG ACTGGCTCAG
179521 GCCATTAAGG GAAGTGGGGG TTGAACATGC CTCATTATTC CTCTCTGGCA TTAACATCAA
179581 CACAGCTTTT AAGTCTGATA AGAAACATTT TACAACCTAT TCTCTCTGAA GCCTGCTAGC
179641 TAAAACTTC ATCCCATAGT ACAACTTTGG TCTTCACAAC CTGTTATCAC AACCTAGTGC
179701 TCCTTTCTAT TAATCCCAA TCTTTATACA AACTCAACCA ATTGTATCA CCTCCACCCC
179761 ACTCCTCCGC TGCTTCCAGT TGTCCCGCCT CTCTGGACCA AACCAGTGTA CATTTCTTAA
179821 ACGTATTTGA TTGATGTCCC ATGCCTCCCT AAAATGTATA AAGCCAAGGT GCATCCCAAC
179881 CACCTTGAGC GCTTGTTCTC AGGACCTCCT GAGGGCTGTG TCATGGGCCA TGGTCACTCA
179941 AATTTGGCTC AGAATAAATC TCTTCAAATG TTTTACAGAG TTTGGCTCTT GTCATGACAC
180001 AGATGACTGC TTTACTGAAG CCTGCTCTGG AAGTGAGTGG GGGTTTTGCA AGGATAATTT
180061 TCCCCGATA GCCCCAGAAG CAGCTAGTAA TAATACACTT AAAGGTAGCT AAAATGCATT
180121 GAACACTTGT TTTGTGCCAG ACCTATGTCA ACATTGCTT TGTGCCAGGC TTATGCCAGT
180181 ACTCCTGATT TGTTAATACA TTCTAAATAA AAATTCTGGA GTTTCAAATA TAATAACTGA
180241 AAAACAGAAA ATAAATAAAA ATATATAATA ACTGAAATAA AAATTTACTA AGGCTGGGGA
180301 TGGTGGCTCA CTCACACCTG TAATCCTGTT ACCGGAAGG GGTCCGTCCA GATCCAGACC
180361 CCAAGAGAGG GTTCTTGGAT CTCACACAAG AAAGAATTCG GGCGAGTCTG TAAAGTGAAA
180421 GCAAGTTTAT TAAGAAAGTA GAGGAATAAA AGAACGGCTA CTCCATAGGC AGAGCAGCTC
180481 TGAGGGCTGC TGGTCGCCCC TTTTATGGT TATTTCTTGA TTATGTGCTA AACAAGGGGT
180541 GGATAATTCA TGCCTCCATT TTTTAGACCA TATAAGTAA CTTCTGACG TTGCCATGGC
180601 ATTCGTAAAC TGTCGTGGCG CTGGTATGAG CATAGCAGTG AGGACGACCA GAGGTCACTC
180661 TCATCGCCAT CTTGGATTG GTGGGGAGCA GTGAGGATGA CCAGAGGTCA CTCTCATCGC
180721 CATCTTGGAT TTGGTGGGGT TTAGCCAGCT TCTTTACTTT TTTCTTTTTT TTTTTTTTTT
180781 TTTTTTTTTT GCCCAGGCTG GAGTGCAGTG GCACGATCTC AGCTCACTGA AACCTCCAAT
180841 TTCTGAGTTC AAGCGATTCT CGTGCCTCAG CCTCCCAAGT AGCTGGGATT ACAGGCATGT
180901 GCCACCACAC CCAGCTAATT TTTTATATTT TTAATAGAGA CCGGGTTTCG CCATGTTGCC
180961 TACGCTGATC TCCAACCTCT GCGCTCAAGC CATCCAGCCA CTTAGCCTC CCAAAGTGCT
181021 GGGCTTATAG GTGTGAGCCA CCCCACCTGG CCTAGCCGGC TTCTTTACTG CAACCTGTTT
181081 TATCAGCAAG GTCTTTATGA CCTGTATTTT GTGCCCCTG CCTGCCTCAT CCTGTGGCTT
181141 ACAATGCCTA ACTTACAGGG AATGCAGCCC AGCAGGACTC AGCCTTATTT CACCCAGCTC
181201 CTATTCAAGA TGGAGTCTTT CTTGTTCAAA TACCTCTGAC AAGCCCAACA CTTTGGGAGG
181261 ATGACACAGG AGGATTGCTT TAGCCTAGGA GCTCAAGACC AGCCTGGGCA ACACAGTGAG
181321 ACCCCATCTC TAAAAAATAA AAATACAAAA AAATTAGCCA GGCATGATGG TGTGTGCCTG
181381 TAGTCCCTGC TACTCAGGAG GCTGAAGTGG GAAGATGGCT TCAGCCCAGG AATTCAAGGC

Figure 9 (Page 56 of 74)

145/162

```

181441 TGCATTGTCA GAGGCATTTG AACCAGAATG ACTCTATCTT GAATAGGGGC TGGATAAAAT
181501 AAGGCTGAGA CCTGCTAGGC TGCATTTCCA GTATGTTAGG CATTCTTAGT CACAGGATGA
181561 GATAGGAAGT CAGCACAAGG TACACATCAC AAAGACCTTG CTGATAAAAT AGGTTGTGGT
181621 AAAGAAGTTG GCCAAAACCC ATCAAAACCA ACATGGCCAC CAAAGGGACC TCTGGTTGTC
181681 TTCCTGCTC ATTATATGTT AATTATAATG TATTAACATG CTAAAAGACA CTCCTACCAG
181741 CATCATGACA GCTTACAAAT ACTGCGGCAA TATCTGGACT TTACCTTATA TGGTCTAAAA
181801 GGTGGAGGAA CCCTCAATTT TGGGAATTGT CCACCCCTTT TTTGGAATGC TCATGAATAA
181861 TCCACCCCTT GTTTAGCACA TAATCCAGAA ATAACATAA GTATGCTTAT TTGAGCAGAC
181921 CACGCTGCTG TTCTGCCTAC AGAGTAGCCA TTCTTTTATT TCCTTACTTT CTTAATAAAC
181981 CTGCTTTTAC TTTACTGTAT GGACTTGCCC TAAATTCTTT CTTGTGTGAG ATCCAAGAAC
182041 CCTCTCTTGG GGTCTGGATC AAGACCCCTT TCTGGTAACA TCTTTCTGGT GACCACGAAG
182101 GGACAATACT GAGGAGACTC TGAAGCCAAA GGAAACAGAC TACAGACCA ACTGGCTGAC
182161 TTTGGGTAAG TGGTGGAGTC CCCGGGTAAA GGATAGGATT GGGTTAGAGG TGCAACTTAG
182221 GGGAGATAGG GTCTCTCCTA AGACAGAGAG CGTTTCAGTC CGCTCTTAAT AAAGGGCAAG
182281 AATGCTTGAC CGAACTTGGG TTTGAGACCC AACTTAGGAA GGCTACAGTC CTTAAGATTT
182341 AAGGGGTTAG AGGCCCTCT CAGTAAAGTC TCTCTTGGTT AAAACGGAT TTAGCATTAG
182401 GGGATGTTAA CTGCTATTCT GTTTGTATTA ATCTTCCCTG TGCTCTTTGC TGACAGCTAT
182461 GGGTGACAGG ATTAGGCATG TACAGGATCA CGGGACATTG GGAACTTTTC TTCTCTCCAA
182521 AAGGGGAAGC TTGACAGCTG ATAGGACTGT TGGAAAAGAT CCCTTGTCTA TGACAAGCAG
182581 CCGCTGAAC TTTTGATTCA GTGTTGCTGC AATGGGTGGG TCTTTCTCTG GCCTCTGTGA
182641 ACTCTCACC TTCCCCACCT CACCACAGGC AATGCTTTTC TCCCTTTCTC TCTTTCTCT
182701 TTTCTGTCTT TTCTGTTACT TGAGACAACC ATCTTGCCCA GAGACCATAT GTTGAAACTC
182761 CTGGTCAGAA GTTTGATTAA AGATGAAAGG GCCTATCTGG GGGCAAGTTT GAGCCTTCCC
182821 AGTTAGATAT TGGGTGCTAA GTGGAGTGGC CAATGTCTAT GTTTTGTCTAC ATGTATATTG
182881 CTCTGGCTGA AATGGAAAAC GTTAATTTGG TTACTTTATG TGGCCATTGG GCAGCATCTT
182941 ACAAAGTGA GAGACATTTA TTTGCCTGTG GTTCCATGAA ACAGAAAAAA GTTGGTTTTC
183001 CTTTGTGTCG TAGCTTGGAC CCAAGGGCTT TGCAGTGAGC AAGGTTGCTA GCGCTGCTCA
183061 GTGAAAGAGA ACCCAGAAAC CTGGCATGCC AGCAAAAGGG TAAAGATTTT TTACCAGTCA
183121 GGCTTCTGGC CTCTCTCTCT TAGTGAAAAC TGAATGAATG GTAAAAATCA CTGTTTATCA
183181 CCTCTGTAAA GTTTTGATTA ATGGGAACAA GGATTTGTGG GGCTAGTCTT AAGCTGTAAT
183241 GAATCTGGTA TACTTTGTGA TATCAATTTG TCTTTCTGTA TTACTCTGTC ATAAAGAGGA
183301 ATATGGTAGG ATAGAACATG GGCTTAGGAC TCCATAAGCC TGCTGTTCAA GCCAGCCCAG
183361 TAAACTGGTC CGTTGCAAAG TTTATTACAG GTCCCTGGAA AAAAAAAAAA TTAATAACTG
183421 GATGAAGTTT CCTTCTCATC TTGTTTTATG TCCTTTGGAG CTTACCTTG TAACCACGTG
183481 GCGGTACTTT CTCTTGGTCT CTGCCATCCA GGGAACAGGA ATTTTGGGGT TTATGTAATA
183541 GTTAACCTCT AAAATTATCT CAAGCCATTG CAAGCTCAA ATTGGCTGCT CTGGACCCCT
183601 TCTGGGAAGG GCAATGGAAA CTAACCAAGT TTGTAGCTCA GCAGCTAAGG ATTTGTCTAT
183661 TTATAATGGC GGCCAAGGTT CAATCCTGGC TTAGGGAATG AGTACTTTCT GATTGATATC
183721 TGTGTGACCT TTACCATTG TTGATTCTGT TCTCTTCCCC TCCACACACT GTCTTGAGTT
183781 TTCCTCTCTC TGAGAACCTG GGAGATTATC TTTGGTAAAG TTCAAAGCC AGAAATAATG
183841 GCCGTGTGGG ATGGCTAAAG TTGAGTAATA AGAACTTAA AAGGACTCCT TTTTTTTTTG
183901 CTTTAGAGTG CTATGGTTTA TGGTTAAAG CTTAATTAAA AGTGGATATT CAATCTCTAA
183961 AAGCCTGGGA CTCCTTGGGA AAAGCAGAGG AGGCACCACA GACCCCATTT TGGGAAAACC
184021 TCTGTTTTCC TCATGAAACC CCAGGAAGTGA GAAGTGGATA GATCCTTCGC AAAATCTAAG
184081 GCTCTGTTTG GCTTTGCATT ATGTTATCTG ATGTTTTTGA CTTTTGGGGG TATCAGAAAT
184141 TACTTTGCAT TATGAGGGAG ATCTGGTGTG TAATAACCAG GTAGGAAATA TACTTCTGGG
184201 GATAGCTAAA GGCAATATA GGTGAATACT TGGCTATTTG CACTTTTGGG TCACAAGAAG
184261 CATTCTCTTG ACTACCTAGA AGGTATGGAA ATGTCTCCAT CCCACCGAG AGATAAGATT
184321 CCCAGGGGAG ATGGCTGATC CCCCAAAGA GGGCTGATTC CCTCTTTTGG GATCCAGGAT
184381 CTGGTATAAA AATGGGACCC TGGCCAGGCA CAGTGGCTCA CGCCTGTAAT CTCAACACTT
184441 TGGGAAGCCT CAGAGTTATG AATGTCTCAC CATACTGACA CTTTGTGACT GAGCTCCTCT
184501 CTACCCTGGA CACAAGAGAC CCTAATAATT AGACAGGAAT ATCATTGCCC CTATTTAGTC
184561 TGAAGAAGTT ATAGAAGATG GATCTTTATC CCACTGCAAT CCTTAGGATT AAGGGTTCCC
184621 TGGTAAAAGG GAGTGGGAAA ATATGTCAGA GGCATTTGAA TCAGAGTGAC TCCATCTTGA

```

Figure 9 (Page 57 of 74)

146/162

184681	ATAGGGGCTG	GGTAAATATA	GGCTGAGGCC	TGCTGGGTTA	GGTTAGGCAT	TCTAACCAGG
184741	AGTTTAGTCA	CAGGATGAGA	TAGAAGGTTG	CACAAGGTAC	CCGTCACAAA	GACCTTGCTG
184801	ATAAAATAGG	TAACGGTAAA	GAAGCCAGCT	AAAGCCCACC	AAAACCAACA	TGGCCACAAA
184861	AGTGACCTCT	TGTCATCCTC	ACTGCTCATA	TACACTAATT	ATACTGCATT	AGCATGCTAC
184921	AAGACACTCC	CACCAGTGCC	ACGACAGTTT	ACAAATACCA	TGACAACATC	TGGACGTTAC
184981	CTTATATGGT	CTAAAACGGG	GAAGAACCCT	TAGTTCTGGG	AATTGTCCAC	CTCTTTCCTG
185041	AAAAATCTTT	GAATAATCCA	TTAGTTTAGC	ACATAATCCA	GAAATAACTA	TACGTCTGCT
185101	TATTTGAGCA	GTCCATACTG	CTGCTCTGCC	TATGGAGTAG	CCATTCTTTT	CTTTTATTTT
185161	TATTTTITAG	ATAAAGACTC	GCTCTGTCAC	TCAGGCTGGA	GTCTGGAGTG	CAGTGACGTG
185221	TTTTGGCTCA	CTGCAACCTT	CACCTCCCGG	GTTCAAGCAA	TTCTCCTGCC	TCAGCCTCCC
185281	AAGTAGCTGG	GACCACAGGT	GGGTGCCACC	ATGCCTGGCT	AATTTTGTGA	TTATTAGTAG
185341	AGATGGGGTT	TCGCCATGTT	GGCCAGGCTG	GTCTCGAACT	CCTGGCCTCA	AGCGATCCAC
185401	TGCTTCTGGC	CTCCCAAAGT	GCTAAGATTA	CAGGCATTAC	CCACTATGCA	TGACCCATTC
185461	TTTATTTTCT	TAACTTTTTT	TTGTTTTTTT	GAGACAGAGT	CTCACTCTGT	CACCCAGGCT
185521	AGAGGCTGGA	GTGCAGTGGT	GCGATCTTGG	TTCACTGCAA	CCTCTGCCTC	CTGGGTTCAA
185581	GCGATTCTTC	TGCTCAGTC	TCCTGAGGAG	CTGGGACTAC	AGACATGTGC	CACTACACCC
185641	AGCTAATTTT	GTATTTTITAG	TAGAGACAGT	GTCTTGCCAT	GTTTGTGAGG	CTTGTCTCGA
185701	ACTCCTAACC	TCAAGTGGTC	TGCTTGCTTC	AGCCTCCCAA	AGTGCTGTGA	TTACAGGCAT
185761	AAATCACTGC	GCTCGGCCCT	TCTTTACTTT	CTTAATAAAC	TTGTTTTTCA	TTTACTGTAT
185821	GGACTAGCCC	CAAAATCCTT	CTTGTGTGAG	TTCCAATAAC	CCTTTTGTGT	GTGAAAGAAAT
185881	TTATGGCTGC	TGTTCAAGCT	GGAGCAAGCT	GGAGCTCATG	CTGCTGCTCA	GACTGGAGCA
185941	TGCGTGATCT	GTGATCCCAG	TAAGAGGATC	ATGGTCACTC	CAGCCTGAAC	GACAGCATGA
186001	TATCTCATCT	GTAAGAAAAA	AAAAATTACT	AGAGGGCTTT	AACAGCAAAT	TTGAGCAGCA
186061	AAAAGAAGTA	ATCAGTGAAC	TCAAAGATAG	GTCAATTGAA	ATGATCTACT	CTGAAAAACA
186121	GAAAGAAGAC	AGAATGAAGA	AAAAGAAATA	GAGCCTTAGA	GACAGGGGAT	ACCATCAAGC
186181	ATACTAATAT	ATGCATAATG	GGACTCCTAG	AAGGAGAAAA	GTGAGAGGAC	AGGGAGAGAG
186241	AATGTTTGGG	GAAATAATTT	CTCAAAGCTT	CCCATGTTTG	GCAAAAAAAC	ATTAACCTTGC
186301	ATACATATTT	TAGGAGCTCA	ATGAATTCCA	AGTAGGATAC	ACTCAAAGAG	ATCCATACCT
186361	AGACACATCA	TAATCAGATT	ATCAAAAAGAT	GAAGAAGATG	AATCTTGAGA	GCAGAAAGAA
186421	AGGAACAATT	CATCACATAC	AAATAGTACT	CAAAAGATGT	CTGGAGTAGG	TATACTAATA
186481	TCAGACAAAA	TAAACTTTAA	GATAAGCATT	GTTATAATAA	ATAAAGAAAG	GTATTTTGTGA
186541	ATGATAAAAG	TGTCAATTCA	TCAAGAAAAAC	ATAACATTAT	AAACATACAT	GCACCTAACA
186601	ACAGAGCCCT	AATATTCATG	AAACAAAAC	GACAGAATTG	AAGGGAGAAA	TAGAAAATTC
186661	GACAATAATA	GTTGGAGACA	TCAATACCTC	ACTAGTTAGA	CAAGATCAAC	AAAAAAATAG
186721	AAGACTTAAC	ACTTGAAAAC	ACCTAACCTG	ACCCTAACAT	AAATCTATAG	GTCCTACAC
186781	CCCAAAACAG	CAGAATAAAC	ATCCTTCTGA	AGCTCACATG	AAACATTTTT	CAGGATAGAC
186841	TGTATATTAC	TTTATGAAAT	AAGTCTCAAT	AAATGTAAAA	GGACTATAAT	AATAGAGTAT
186901	ATATTCTCTG	ACCAAAGTGG	AATGAAGATA	GAAATCAATA	ACTAGGCTGG	GCGTGATGGC
186961	TCACGCCTGT	AATCCCAGCA	CTTTGGGAGG	CCAAGGCGGA	CAGATCACGA	GGTCAGGAGT
187021	TTGAGACCAG	CCTGACCAAC	ATGGTGAAAC	CCTGTCTCTA	CTAACAAAAT	ACAAAAATTA
187081	GCCAGGCCTG	GTGGCATCTG	CCTGTAGTCC	CAGCTACTCG	GGACACTGAG	GCAGGAGAAT
187141	CACTTGAAACC	CAGGAGGCAG	AGATTGCAGT	GAGCTGAGAT	CGCGCCACTG	CATTCCAGCC
187201	TGGGAGACAG	AGCGAGACTC	CATCTCAAAA	TTAAAAAAA	AAAAGAAACT	AGAAAAATAA
187261	GAACAAATCA	AACCCAAAGC	AAGCAAGAGG	AAAATGAAAA	ATTTCAAAGC	AGCCAAGAAC
187321	AAAAGGCACA	TTATGTACAG	AAGAACAAGT	GTATAGATCA	CATATTTCTC	ATAGACACAA
187381	TATAAGCAAA	AAGACAGTGG	AGCAAAATTT	TTTAGATTAA	TGAAAGACCT	ACAATTCTGT
187441	ACCAAGCAAA	AAAACCTCCC	CCAAATGAGG	GTGAAATAAG	ACAATTTAAT	ACAGAGAAAA
187501	GAGGAAGGAA	TTTATCTAGT	CATATGTGAG	AGTTTTATGA	TACATTTTGT	ACTGTATATG
187561	TGGATGTTTT	CTATTTTCATT	TAAAAAATCA	ACCGTGCAAT	TAAATGGTAG	ATTGTCTTGC
187621	TTCTTTTTGA	TTGACACAGT	CATTAACATA	AATATTGTAG	TATTTTTTTT	TCTCCCTGCC
187681	TAAAGGCAAT	AAACATCTAA	TCAGCAGACT	AGAACAATAA	AAAATATTTT	TTAAAGTCC
187741	TTTAGGCAGA	ATGATAAAAG	TCCCTTAGGC	ATATTGAAAT	TCCTATTTAT	ACAAAGGAAT
187801	AAACAGTACT	AGAAATTGTA	ACTATGTGAG	TAAACAGATA	ATATTTTTTC	TCCATAAAAT
187861	GTGGTTGACT	ATTTTCACAA	AAATAGTTAA	CAATGTAATG	TGTGATTTAT	AGCATTTAAA

Figure 9 (Page 58 of 74)

147/162

187921 AGTAAACAG GCCGGGCACA AAGGTTTCGTG CCTGTAATCC CAGCACTTTT GGAGGCCGAG
187981 GCGTGCAGAT CACTTGAGGA CAGGAGTTCA AGACCAGCCT GGCTAACATG GCAAAACCCC
188041 ATCTCTACTA AAAATACAAA AATTAACCAG GCGTGGTGGT GCACGCCTGT AATCCCAGCT
188101 ACTCTGGAGG CTGAGGCACA AGAATCACTT GAATCCAGGA GGTGGAGGTT GCAGTGAGGC
188161 AAAATTATAC CACTGTGCTC CAGCCTAGGC AACAGAGCTA GACTCTGTCA CACACACACA
188221 CACACACAAA AGAAAAGTGT ATGACAACAA CAGTGCAAAA GAAGCGGAAA TGAAAAATAAT
188281 GTTATTTTAT ATAAGTGGTA TACTTTTAGA TGAACACGA TAAATTAATG ATGTATACTA
188341 TAAACTCTAA GGCAACCACT GAAATAATGA AACGAAGAAT TATGGCTAAC AAGCCACAAA
188401 AAGAAATAAA ATAGAATGAG AAAAAATATT TAAGTTGTTC AACAGATGGG AAAAAAAGA
188461 GGAAAAAGAG AACAAAGAAC AGATGGGACA AATGGGAAAAG TAATAGCAAG ATGATAGACT
188521 TAACTCTACC CATATAGATT ATCACACTTA AGGTAAATGA TCTAAATACT CTAATACAAA
188581 AGCAGAGGTT GTCAGATTGA ATTAAAAAAA CAGACAACAA CAAAAAAG CAAAAAAGA
188641 GCCACAACAT GCTGCCTACA AAAAAATCAC TTTAATATAA AGACACAAAT AGTCTAGAAC
188701 ACCATCACTT TTAACCTTAT TTACTCAAAC CTCCTAAGT ATCCCTATTG ATTTATTTAT
188761 TTATTTATTT ATTTATTTAT TTATTTTGA GACAGAGTCT GACTCTGTTG CCCAGGCTGG
188821 AGTGCAGTGG CACCATCTAG GCTCACTGCA GCCTCTACCT CTCGGGTTCA AGCGATTCTC
188881 CTGCCTCAGG CCTCCCAAGT AGCTGGGACT ATAGCACATG CCACCATGCC AGCAGATTCTC
188941 TTATATTTTT AGTAGAGACG GGGTTTTGCC ATGTAGGCCA GGTTGGTCTC AAACGCCTGA
189001 CCTCAGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCCA CAGCACCAG CTCCTCTTCA
189061 TTTATCTTG CTACGCTTCC TCCAATCCAT TTTGTGCATT TGATGATTTT GCCAGTAACT
189121 TCTTTATTTT TCTGGTAAAA TTACTTATGG GTCACTGAGG ACTGGGATGT TCTTTCTTCT
189181 AGAGGGGGTT TGTGTCTGCT TTTGCCAGGA AGCTGGGGTA CCACCAGTCA AGTATTACTT
189241 TAAACTCAAT TCATGAATTG AGACTTTTTT TTTTTTTTTT TTTTTTACGC AGAGTCCTAC
189301 TCTGTACCCC AGGCTGGAGT GCAGCGGTGT GAACATGGCT CACTGCAGCC TCAACCTACT
189361 GAGCTCAAGC AATCCTTCTG CCTCACCATT CTGTATAGCT AGGACTACAG GTGTGTGCCA
189421 CCATGCCTGA CTAATTTTTT AAATGTTTTT TTTAGAGATG GGGCTCACTT TGTGCCCAG
189481 GCCGGTCTCG AGCTCCTGGG CTCAAGTGAT CCTCCACCT TGGTCTCCCA AAGTGCTGGG
189541 GTTACAGGCA TGAGCCTCTG TGGCTAGCCA AGACTTTTTA TTTTTTAGCC TAAATGTGTA
189601 TAAAGTTGG CTTGTGGTTA CAACTTATCA GGATTGATGA TCTCTCTCTC TCTCTCTCTC
189661 TCTGTCTCTC CCCACCTCTC TCACATCCCT TGCTCTGCTG AGAAGCAGAG CAAACATTCT
189721 AGCAGTTTCC AGAGAGTAGG ATGGGATTAC TTCTAGTTTA CTTTATCAT CCTTTGGGAT
189781 CGCAGTATTA CTGGGAGAAC ACAAGTATCT CTTATTAGAC ATACCACCTT TGTAAGATCT
189841 GGACTTTTAT TTTAGACTTT ATTTGTTTTT TACTATAAGC AATTTAAGTT ACAGATCTCT
189901 CTACACACTG TTTAAGTTGC ATCCCATGAA TTTTGATGTG CTTTATTGTC ATTATTATAT
189961 AGTACAATGT ATTTTGTAAT TTTTGTGAT TTGTTTGGAG AGATTGATTA ATTAGAATGA
190021 TGTTTAAATT CCAAATATGT GTGTTTTTTT CCTACATTTT TTTATTTTAT TGATTTCAAA
190081 TTTATTTCTA CTGTAGTCAG ATTTAATAAT TCATTTATTT TTATTATTTT CATTTTTTTA
190141 GAGACAGGGC CTTTCTGTGT TGCCCAGGTT TGTCCCAAAC TCCTAGTCCC AAGCAGTTCT
190201 CCTGCCTCAG CCACCCAAAG TGCTGGGATT ATAGGCACGA GCCACCCGTG CACAACCAAC
190261 AATTCATTTA AAAAGTGGGC AAGTGAAGT AACAGACATT TCTCAAAGA AGGCATACAA
190321 TTGGCCAACA AATATATGAA AGAATGCTCA ACATCACTGT ATTAGTCTGT TTTCATGCTG
190381 CTAATAAAGA CTTAACCTGA GACTGGGGAA TTTACAAGAG AAAGAGGTTT AATGGACTTA
190441 CAGTTCACA TGGCTGGAGA GATCTCACA TCATGGTGGA AGGCAAGGAG GAGCAAGTCA
190501 CATCTTACAT GGATGGCAGC AGGCAAAGAG AGAGCTTGTG CAGGGAACT CCCGTTTTTA
190561 AAACCATCAG ATCTCGTGAG ACTCATTCAC TATCATAAGA ACAGCATAGG AAAGACCCGG
190621 CCCATAATTC AGTCACCTCC CACTGGGTTC CTCCAGGAC ACATGGGAAT TGTGGGAGTT
190681 ACAATTCAAG ATGAGATTTG GGTAGGGACA CAGCCAAACC ATATAAATAA CTAATCATCA
190741 GGGAAATGCA AATCAAAACC ACAATAAGGT ATCATCTCAC CCCAGTTAGA ATGGCTATTG
190801 TCAAAAAAAC AAAAAATAAC AAATGCTGGT GAGGATGTAC AGAAGAGGGG ACTCTTATAT
190861 CCTACTGGTG GAAATGTCAA TTAGCATAGC CATTATGCAA AATAGTATGG AAGTGAGGTA
190921 GGTTACATAG GGTGGTCACA GCCTCCCTTG AAAGGAAACA AGAACTTGT CAAATTGATG
190981 GAGAGAACAA ATCTCTTGAC ATTACACAAA CTGCATCTGG GGCTAGTGGT TAGAATATCC
191041 TCAGTCAAGG AGGTAGAAGA GCAGGAGGGA AAATCCCTAA GTTCGTGCAA GTGCAGAAAC
191101 CCACAAGCTG TGTTCTCAGG TTGACATATA CTCATTTTAA TAGTAAGAAA CACACCCTTG

Figure 9 (Page 59 of 74)

148/162

```

191161 GGTAGAGAAT TAAAATGCTA ATAATACATG TGATGTATGT ACTAGCGTGT ATGGCAATAT
191221 TGCATGCACA TTCAAGAGAC CACCCAAAAC ATATTTAACA ACAATGCCCA TTCCCACCCC
191281 CTCATGGATA ATCACGTAGG ACTCCCATAA CGGGAGTTTC TTCAGTGTC AATTGGTGCTG
191341 AAGTAGCCGA CCCTGACTCT GCTATCAGCG TGTACTTTCA CCTTGCAATA AACTCCTTTG
191401 CCTACTTTTA CTTTGGACTG GCTTTCAAAT TCTTTTGTGC AGGGAATTCA AGAATCTGAA
191461 CCAGCCCACT GACAACAGAG GTTTCCTAGA AACCTAAAAA TAGATCTACC AGATGAGGCT
191521 GAAAATCTGC TACTGGCTAT TTATCCAAAG GGAAGGAAAT CAGTATACAA AGAGACACCT
191581 ACATCCCCAT GTTTATTGCG TCACTCTTCA CAAGAGCTGA TATATAGAGT CAACCTTAAA
191641 TGTTCAATTAA CAGACAAATG GATAGAAAAT GTGGCATATA TACACAATGA AATACTATTT
191701 GGCCATGAGA AGAATGCAAT CTTGTCATTT GTGGCAACGT AGATGAAACT GGAGAACATT
191761 ATGTTAAGTA AGATAAGCTA GGATTGGAAA GATAAATACT ACATGTTATC ACTCATATGT
191821 GAAAGTAGAG AAAAATTTTT AGCTCATGGA TTTAGAGAAC AGAACTGTGG GTACCGGAAG
191881 CTGGGAAGGG TAGCAAGGAG GGGAGGATAG GGAGAGGTTG GTTAATGGTG ACAAATTAC
191941 AGCTAGATTG TAGAAATGAG TTCCGGTGTT CTGCACCATT GTAGGGTGCA TATGGTTAAC
192001 TCTCATTTAT TGTATATTTT CAAAAAGCTA GAAAAGAATT TTGAATACTC ACAACAAAAT
192061 AAATGATAAA TGTTTAAGGT GATGGATATA CTAATTACTC TGATTTGATT ATTACACATT
192121 GTGTACACAT ATAAAAATAT CACTCTTTAT CCCGTATATA TGTACAGTTA TTATATGTCA
192181 ACTAAAAATA AAAGAAAAAA AGAATATGAT CTATCATGAT GTATATATCA TGTGTACTTG
192241 AGCAAAATGT GCATGCAGAT ATGTGTGATA ATGTTCTATA AATCAATTAG CTCAAGATAA
192301 TAGATAGGAT TGTTCAAGTC TTCTGTGCTT TTAGTGATAT TTTGTCTAGT TATTGCATCA
192361 TTACCAAAAA AAGGGTGTTA AACTCTCCAA ATGTGATTGT AGAATTGTCT ATTTGTCTT
192421 TTCTTTTCCA TTTTACTTTT ATGTATTTTG AAACCTCTGT ATGACATTTT GCTATGTATT
192481 TTAAAACTTC GTTATGTATT TTGAACTCT GTTGTTAGAA TCATACATTT ATGATTATTA
192541 TGTTTTCTTG ATGAAATGAC CCTTTTCTAT TGTCGTTGTT TTTGTTTTTT CTGAAATGGA
192601 GTCTCACTCT GTTGCCAGG CTGGAGTACA GTGGCACAAT CTTGGTTCAC TGCAACCTCC
192661 ACCTCCTGGG TTCAAGCGAG TCTCCTGACT CAGCCTCCAA GTAGCTGGGA TTACAGGCAT
192721 GTGCCAGCAT GCCAAACTAA TTTTGTATTT TTATTAGAGA CAGAGTTTCA CCACGTTGGC
192781 CAGGCTGGTC TCGAACCTCT GACCTCAGGT GATCCGCCCA CCTCGGCATT TTTATTTTAT
192841 TTTATTTTTT TGAGACAGAG TCTCACTCTG TCACCCAGGG TAGAATGCGG TGGTGTGATC
192901 TTGGCTCACT GCAACCTCCG CCTCCTGGGT TCAAGCAATT CCCATGCCTC AGCCTCCCGA
192961 GTAGCTGGGA TTACAGGCAC ATGCCACCAT GACTGGCTAA TTTTGTATT TTTAGTAGAG
193021 ATGGGGTTTT TCTATGTTGG CCAGGCTGGC AACTGACTCC TTTAACAATA CAAAATATCA
193081 CTCTGTCTCT GGTAACACTC TCTGTCTTAA ACTCTATTTT AGCTGTTATT ATTATAGCCA
193141 TTTTAGTCTT TTTATGCTTT CTGTTTGCAT AGTGTATATA TTTTAATATG TTTATTCTCA
193201 AGTTATCTGT GTTTTTATAT TTAAGATGTT TCTCTTCTAG CCAACGTGTT TGGTTCTTGC
193261 ATTTTTAAGT CGATTCTAAC AATCTTTGCC TTTCAATTGA AATATTTACA CCATTAACAT
193321 CTAACATTAA CATTTATTTT TCTTTCCACA GTACACTGGC TAGCATCTCC CATATAATAT
193381 TGAACATAAA GTGTGATAAC TGACATCCTT ATTTCAATTCC TACTCTGAGT GGAAAGGGCA
193441 GGGGTGGAGA AAGCATTCAA CAATTTGCCA TAATTATAAT TCTTTTGTGTT AACTGTTTT
193501 CTTCTGCATT AAAAATATC ATTACATTTT GCATGAATTA TTAGGAGAAA ATATTTTCCA
193561 ATTTTCTGG AAAATGCCAT AACCACGTCT CTCAATTTTG TTTCCATCTT TCTTCCACAT
193621 TTTACATAAC CTACATAAGA GACACATTAT CAAGTATATT TTACATGGCT TCTCAGTGTC
193681 TTCTCTGTCT GCTAACAGGT TTACCAAGAG ATGGCACTCT TGTATTTCTG GTGGCTATGT
193741 CCATATCGTT TTGCCTTTAA GACAGCGTAA CTACTTCTTT CACCAGTATT AAAGACATGT
193801 ACATTTGATC TGGTTCTTGT GGATGATTTT AAATGACTCA AGCTAATAAT CCTAATTTTA
193861 CCTAAACACT CCATTATTTT AAAATGTATT CCTTTATGCC CACAATAAAC ATTTATTGAC
193921 ATTAGGCTGG ACATTAGGCT TCTCTATGGC AGACATTAGG CTGGACCCTA GCCATATATC
193981 TATTGAGGGA AAAAAAATTA TTTTCTATAT AAGTTTCCAG AAAGCCAAGA TGTGTTTTAA
194041 AAACAAAACA AAACATTACA TTCTAAATGC TGTAACAAGA TAAGAAAAAG TGTTGAGGCT
194101 GAGAGAAGAA CAAAGCAGCA AGCAACTCCT GGAAGGACCA CTGCTGCAGA GGTAATAACT
194161 GGTGAACCAT GTTTTGGAGA AGGAAAAGGT CACCAAGAGA AGGAGGGGGT CCAGGGTGTT
194221 CAGAAAGATT GCATGCATAA AGATCAAGGG TAATAAAAAA AATTCCGTAT TATGTAAATG
194281 TGAAGTTCCA GGACCATGAG CTTGGAGAGC ATGAAGTACA GGAGGAGGGT TGGTTTCAAA
194341 TAAATCTGGG AATGAAACAG TGAAGCCTCT GGCAGAACTC ACATCTCTTT CCTCCCTCT

```

Figure 9 (Page 60 of 74)

149/162

194401	TCCTTGACACA	TTCCCTTTTAT	GGAGTAATTG	CAGGGATGGG	AAAAGTTCAA	AACCACCACT
194461	GAGCCTAGGA	AGTGCTAGGG	TAAAGTGGAG	AATGAACCTG	CGTGATTTGC	TCATCCTAAA
194521	CTAGGTTCTT	CTAGGAGAGC	CCTTCCCCAT	AAAATCTGCC	CTCCTCGAAG	GGGCCCAGAC
194581	AGCCTAAGCT	CACCTCCCAA	AGACCCCTTA	CTTGCTGACT	GAATCTGATT	CCACCCAGAC
194641	ATGGCCTAAA	ACCCTTCCAT	AACTCTATAG	CCAAATTCAA	TTTTAGACAG	GCCTCATACC
194701	AACCTTTCTT	CCTCTAAGTC	TGCCACCCTA	GGCAATTCTC	AACATTCTCT	ACACACTTTG
194761	GGGCCATAGA	CGTGCTACCA	AGTCTCCAGA	CCTAGACCTG	ATGGAGCAGT	GCTGTAATGA
194821	GACGACCACT	GGCCTTTGAA	CCAGACCCTT	CTCTGTGGCT	CCTATGCATC	TCCAACCTGT
194881	TTTGAGCACT	GCTGCCAAGA	CATCTTTGGC	ACTTTGTTGT	GAAGTTTTAA	AACTGAACATA
194941	ATCTACAAAA	CACCTAACCT	TTAAAAATTC	ATTGTCATTT	CATATCATGA	AAGATAAAGA
195001	AAGGCCAGGA	AACTGTTCCA	GGTTAATAGA	GACTAAAGAG	ATAGCAACCA	AATGCAATTT
195061	GTGATCCTGG	ATTGAGGGGA	AAAAGTGTG	TCAGAGACAT	GATTGGGACA	GCTGGTAAAA
195121	TTTGAATTTG	AATTTAAAGA	TAAAGTATTG	AGTAATATAG	GAAGATGATT	ATCTGCAACT
195181	TTCAAATGTT	TCAGTAAGTA	TATATATATA	TAAAGAGATA	TAAAGACATA	TAAATAAATA
195241	GATGATAGG	TAGAGAAAAA	GCAAAATGAT	AATATTAACA	ATCTAGGTAA	AAAGTATATG
195301	AGTGTTCTTT	GTACTGTTTT	TCTGATTTTT	CTATATGTTT	GAAATCATTT	TAAAATAAGA
195361	AGGTTTTTGG	GGTTTTTTTT	TTTGTTTTTT	GTTTTTAGAG	ACAGCATCTT	ATTCTGTCCAC
195421	CCAGGCTGTA	GCTCAGTGGC	CCAATCATTG	CTCACTGCAG	CCTCAACTTC	CTGGGCTCCA
195481	GTAATTCCCC	CTACCTCAGG	CTCATGAGTA	GCTGGTACTT	CAGGTGTGCA	CCACTGCACT
195541	CAGCTAATTT	TTATTTTTTA	AATTTTTGTA	GAGATGGCAT	GTGCTATGT	CACCCAGGCT
195601	AGTCTCAAAC	TCCTGCCCCC	AAGTGATCCT	CCCACCTTGG	CCTCCCAAAG	TGCTAGAATT
195661	ATAGGCATGA	GCCACTGCAC	CCAGCCCCAA	ATAAAAAAGT	ATTTTATTTT	AATTAACATA
195721	TTAATTTTGA	GTCAGAGTTT	CACCCCTGTC	ACCCAGGCTG	GAGTGCAATG	GCATGATGTT
195781	GGCTCACTGC	AAACTCTGCC	TCCTGTGTTT	AAGCGATTCT	CTTGCCCTCAG	ACTCCTGAGT
195841	AGCTGAGATT	ACAGGTGCCT	GCCACCATGC	CCAGCTAATT	TTTATATTTT	TACTGTAGAG
195901	GGGGTTTCAG	CATGTTGGTC	AAGCTTGTCT	CAAACTCCTG	ACCTCAGGTG	ATCCACCCAC
195961	CTCGGCCCTCC	GAAAGTGTG	ATGAGCCACC	ACACCCGGTC	TAAAAAGTAT	TTTAAAACCA
196021	CAGTCCCCT	CTACCTTGTC	CTACACTACC	AGGGGCTAGG	ATCACCCCAT	GTCTTCTAGG
196081	CTATGAGATA	GAGGAATCCA	AGGAAGAAGA	TAAGCTACTT	GGTTCCTCTA	TAGGGTCTTG
196141	TGTGTGCTCT	CATGTGCTCT	CTCTCTCTCT	CTCTCTCTCA	CACACACACA	CACACACACA
196201	CACACACACA	CACACACATG	AATACCAGAG	CTATCACTTT	CCCAGTCTAG	TACTCATCTC
196261	ATCCCAAGGG	TTTTGTGTTG	TAGTGGTTTG	CTCATTTGTT	TGTTTTGTTT	GTGTGCTTGG
196321	ATTATTCTTT	TTCTCTTTTT	GCAGCTGAAG	GGAGAATTTT	CAGGCCAGCC	CTTTGGCCAT
196381	TAGAGTTACA	GTGCCTCTAT	TCAGGCTTCA	TAGAGAGACC	TGGGATTGAG	TAGTGGGGGG
196441	CTTTTATCCA	GTTCAAAATA	ATGCATTCTC	ACCAAGATGT	ACTTTGAAAT	AAAACAATAC
196501	TAAACACAAA	AATTTTATTT	ATGCTGAACA	TTGAATCACT	TTTTTCTGTA	TTTTGTGTAG
196561	AAAGTTATAC	ACACACAAAC	ACATTTGCTC	CTGCTTTGTT	TATTGGCCCA	GGGGTATGTT
196621	TGGTAATACT	TCATCAGGCA	TGAGTAGTAC	GTCTTGGAAG	GTGTGGTCTA	AAGCCTAGAC
196681	TCCTATCTGC	TTCTTCAGC	ATTCTCCAGT	GATCTGTCTA	TCTGTCTACC	TTAGGATGGG
196741	GTCTCCAGAA	CTTCCATTCA	CATTTAGAAG	AGGGCAGCGG	CTTTCTATGG	AAAATATGAA
196801	CTCTCATTCA	TCTCTATTCC	TTCTTCTAGC	TATGGTCCAG	CTCAGCTGTT	TGGAATAAAG
196861	TATCTATATG	AAGTCTGCGA	ATGGTTCTCA	GACTGGTTGA	ACATTAGAAT	CACCTGAGTA
196921	CCTTCTAAAA	TTCTTATTAC	CCAGGGCATA	TCTCAGAATG	AGTACCACAG	GGTAGGGATA
196981	GGATTAGGGA	TCATGATCTC	TGGAGTCTGG	TTTAGGCACT	AGTGCTGTTT	AAAACCTACGT
197041	TCATGAGGTG	GAGGTTGCAG	TGAGCCGAGA	TGGCGCCACT	GCACTCCAAC	CTGGGCGACA
197101	GAGTGAGAGT	CTGTCTCAAC	AACACAAAAC	AAAAAAAACC	AACTACCCCTT	GTGATTTGAA
197161	TGTCCATCCA	AAATTGAGAA	CCATTAGGTA	AGGCCAAGCT	GTATAATTAA	AGAGCAGTTT
197221	TCATTTGTCT	GGTGTGGTGG	CAGCTTTTTG	ATAAGGGAAG	TATTGTTGCC	ATCCACATAC
197281	CTGAGCCTCA	CTCCTGAGAA	CACTGGTGTG	TATGTTGCTA	AAATTCCCCA	GGTGATTCTG
197341	AGGTTCTTTC	CTGGATAAAA	ACCACTGACC	CTGGGAATGT	ACCCACTGCC	AATCTCCTGC
197401	GTAAACCTTG	GATACTGGGA	AGCCTACAGT	TGAAAATATT	GGGCTTGAGA	TCCTGAAACA
197461	AATCTTGAT	TTCAATTAAGA	CTAATATTTG	GTACAGTGCA	GCAAAATCAAG	GGAATTTTGG
197521	TGGCTGAGTT	CTTTTAGAAC	TTTTGCATTG	AAATAGGTTT	AAGCAGCAAT	AAGTTAAAAC
197581	TACAACCTCA	GCTAAAGGAT	TAAAAGACAC	GTGAGCTGGG	TAGGATGAGG	TCTAAGATTG

Figure 9 (Page 61 of 74)

150/162

```

197641 GGTGTGGCGG CTCATACCTG TAATCCCAGC ACTTTGGGAG ACTGAGGTGG GTGGATCACT
197701 TGAGGTCAGG AGTTCAAAAC CAGCCTGGCC AACATGGTGA AAACCCATCT CTAATAAGAA
197761 TACAAAAAAA TTAGCTGGGC GAGGTGCCAG GCACCTGTAA TCCCAGCTAC TGGGGAGGCT
197821 GAGGGAGGAC AATCACTTGA ACTCAGGAGG CAGAGGTTGT AGTGAGCTGA GATCGCACCA
197881 CTGCACCTCA GCCTGGGTGA CAGAGCAAGA CTCCATTAA AAAAATAATA ATAATAATAA
197941 CAATAATAAT AATTCAGACA TATCCAGGCA TCAAACAGAT ACCTGGGGCA GATGAATAGT
198001 CTTGAGATTC AAGTCACACA TGAAATTTAG GTGGAAAATG ACATTGGAGA AATTTGAGAT
198061 TATGATGAAT GGAAATTTTT CAAAGAGGAA TTTCAGGCTC TGTTCTTGAG GGGATAGATG
198121 GACTTCCAAC AGCAATAACA CAGGATTAAT GAGGACTTGG GATGTTACAT AAATTAGAGA
198181 TGTTAGATGG ATAAAGAGAT AAAAGTACTC TCTCTAAGAA CATGGGACCA GAGATAGGCT
198241 CACTTCTAAC CATCAGATAT AACTAGCAGA CTAAACGGTC TAAAAATAAA AATCATGCCC
198301 CACTCCTGCT TAAGACATTT TAATTACTCT CAGTAACTCT TCAGTTTTTC TACTGTGTTA
198361 TCTTTAACTA CAGGGTTGGT CTGGGTGTGC AACACAAGAA AGCCTGGCAT ATACATGGAT
198421 TCAAGTGTAT GCCATGTACA GGTATTCTTT CATGTACTAT TTCATGTATT CTTTTTCACA
198481 TCTGTTTTTT CCTTCATTGA AGTCAATGGC TGATATTAGA TTCTACTATT CATGTGTACT
198541 AGTTATATAT AATTGTTACA AAACAAATTA GCAAAAACCT AGTGGCTTAA AGCAACACAC
198601 ATTTATTATT ACCTAAGGTC TGTGGATAGA AGTTCTGACA TGGCTTAACT GGGTCCCTG
198661 CTTCAAGCCT CATGTGGCTG CAATCCAGGT GTTGGCTGAG TCTGAATTCT CATCAGAGGC
198721 TTGATTGTGG AAATTTCCAC TTCCAAGCTC CCTCAGGTTT GTTGAAAAAT TCAGTCTTTT
198781 GCACCGGTAG AAGCTTCTTG GTAGAGGCTG ATTCAACTTC TAGAGGCTGT CTGCAGTTCC
198841 TGTCACCCAG GGTGGAGTGC AGTGGAGCAA TCATAGCTCA CTGCAGCCTT GACCTCCCAG
198901 AATCAATCTG TTCTCCCACC TCAGCATCCT GAGTAGCTGG GACCACAAGT GTGTGCCATC
198961 ACACCTGCCT AAAAAACAAA CAAACGAAAA AAAACCCCCA GAGAACTTTG TAGAGACAAG
199021 CTGGTCTGGA ACTCCTGCGC TCAAGCAATT CTCCTGCCTT AGCCTAAAAG TTCTGGGATT
199081 ATAGGTATAA GCCACCATAC CTGGCATATG GCAAGTCTTG AGCAGGACAA ATACAGATGA
199141 TTTATGTCTG TCTTCCATGG TATTCTAGGT TATTGTTGAG ATGGTCTCTT ATTGTCTTGT
199201 TCCATCTATT GATTAGATAA AACGTTGTTT CTTCTGTTAT TTTTCAACAG TAGCTTTTAT
199261 GTGTCTCTCT TTATCTTAAA ATTCTAACCA AAGAGCTGCT CTTTTCTTGG TGTACTTTAC
199321 CTTTGTTTGA TCCTTCTTAA CCTCTTCTTG CCCTCTGGGG CCTAAGATGA GGGCTGTTAT
199381 CAGATGTGAG TCTATGGGAA AGCAAGCAAG AGGTTCTTCA GCCTCCGTTT AGCCTTAAAT
199441 GTCTAGGTAG AAATCAGTCA TGGCCCTTCC AATGTGGTAC AGACCAGATC ACAGAGACAG
199501 GGGTCTCAGC CAAGGTCTTG TGGCCTAAGC CTTATAGAAA TAATGAGTGT TTAATTACTT
199561 GGAGAACTCC CTTGGAATAT CTTTTTTTGT GAACCTGAGG CAACTTTTGG TGATTTCTTG
199621 ATGTCTTGGG AATCTTGGTC TAGAGCCATT TCAACCTGAT TTCTTTTCAT GTCAGTGGCA
199681 TTTTGTGACC AGATAGTAAA TAAGTTCTAT GATGTTCACT CAGAGAAATA CAATGACTTA
199741 TGATGTGAAG CTTCTGTGGT TCAGCCCTTA CTTTCTCTTC ATTCCCTCTT ATCTGCATCT
199801 GTCTCCTGCT TGGGAACAAA AGTCTGGCTT CATTCTATGA CCCCCACGTT GAGTTTCTTA
199861 GTAGCACTTA CTTTTCAATT AGGAGTGTCC TCACTTCTAT CCATCAGACA TAACTAGCCG
199921 ACTAAACAGT CTAAATATAA AAATCATGTC CTACTCCTGC TGAAAACATT TTAATTACTC
199981 CCCATCATTT AATTTTTTCT ACTGGGTTAT CTTTAACTTC AGAGTTGGTC TTGTGTGCAA
200041 CACAAGAAAA CCTGGCATAT ACATGGATTG AAGTGTATGC CACGTGCATG TATTCCTTCA
200101 TGTACTATTT CATGTATTCT TTTTCACATC TGTTTTTTCC TCTAAAATTT ATTTCCTTTT
200161 AAAAATGAAA ATTTTGCATT TGACTAAATT TGTCAAATTT AGTCAAATTT GTTTAAACC
200221 ATTTTAAAAA TGTTTCCCGA AGTTTTGAGT GAAGTTAGTA CTTTCAAAAA ACTGTTTTGT
200281 ATTTTTCATG TGACCTCAGT GCACTGCTGT GCATTTCCAT TTCTGCGTCC ACACACATTT
200341 GTTTTGAGGA AATATAGGAA CGACAAGATA AAGTTCAAGC TCCTGGACAT TGCATAAAAG
200401 ACCGTCATGA CCTGGTCCTG TTGACTTCCC TAGATTTCCC GCTATTTCCCT AAGTTGAGAT
200461 TTTTGGTTTG GATGCTTTGT GTTTTCTTAA AATCAAAATA GGTTTTTGCC TTTTATGATT
200521 ATACAGTAAA TAAATGCTAT TTGTGTGAAA CTTTAAACAA TACAAAAAAA ACCTAAGGAA
200581 GAAAGTCAGA TTCATCTAAA AATCCTTGTG GCCAGAATTA ACTACCTTAG TTATTATTTT
200641 CTCTATCTCT CTCTCTCAAT GTATATTTGG TGTAGGTATA GGGGTGTGTG TAGTGTGTGT
200701 GTATGTATAT ATCTGTTTCT ATTCTGTAT GTGGATGTGC ACAACGCATC CTGCTTTGTA
200761 CACTACAGTA CTAGCATTTT TCTAATGTAA TTCAATATTG TTGAAAACAT TTTAAAAAAG
200821 CTTGTATATA TACACACACA TACACATACA TGCATGTATG TACATATACA CATAACAGACA

```

Figure 9 (Page 62 of 74)

151/162

200881	AAAATGTATC	CTATGTATAT	TCACACATGT	ATACACACTC	ACACGTACAT	AGAGTTTTAC
200941	ATCCATAGTT	TATAAATGTT	GCTTTTTTTT	GGTCACCTTT	TTGCTAAGTC	TTACACTTTT
201001	TTTTTTTTTT	TTGAGACGGA	GTTTTGTGT	CATTGCCCAG	GCTTAGTGCA	GTAGCGCGAT
201061	CTCACCTCAC	TGCAACCTCG	ACCTCCCGGG	TTCAAGCGGT	TCTCCTGCCT	TAGCCTCCTG
201121	AGTAGCTGGT	ACTACAGGTG	TGCGCCACCA	TGCCTGGCTA	ATTTTTGTAG	TTTTTTTTATA
201181	GAGACGAGGT	TTCACCATGT	TGGCCAAGCT	GGTCTGGAAC	TCCTGACCTC	AAGTGATCTG
201241	CCTGCCTCAG	ATTCCCAAAG	TGCTGGGATT	ACAGATGTGA	GCCACTGCAC	CCGGCCAAGT
201301	CTTACACATC	TTTTTTTTAC	CACTAAACTG	TTTACCCAAA	CCTGATAACC	CAAGTCAACA
201361	GCTATTATGG	CTCACACAAT	CTTATGTAAA	CAAAGATACA	GATATATAGA	ATTTTCTTGA
201421	TTAATATTCA	GAAAAAATG	GAGTCCCTTT	ATACGTCCCT	AGTATCTGCT	TTACTCATTT
201481	AAAATGTAT	TACATTATAT	GAAAGTATTC	AGGTCAAATG	TTATAGATGT	GATTTCATTCT
201541	TTTTAACTGT	GTTATTTTTC	TGCAATGACT	ATGTATCACA	AAGTACTCAG	TCTTCCACTG
201601	ATGAAAATTT	GGGCTATTTT	CAGTTTGTCT	TCCATTTTTC	TTTCTTCCCTC	TTGGATTTTC
201661	ACTCAATGTG	TTTACTAATT	TAGGAAGAAT	CAATAGTTTT	TATGGTATTA	CTTCTCCCAT
201721	TCAAGAATAT	AGCATATGGT	ATAGTATAGT	AGAGTACTTA	GTTTAATTTA	GCCAGATCCT
201781	GTTTTCTGCC	CTTTAATAAA	ATTCTATCAT	TTTCTGCCTT	TGAGTCACAT	TTTCTTTGTT
201841	CATATAATTC	TTAAAAAATG	TATAGTTTTT	ATTCTAAGGG	AACATAAAAA	CTTCTTTCCA
201901	TTTCTATTCC	TGTCTAGTTA	ATTCTACTAT	TGGGAAAAGT	AACTGTTAAA	AAAAATTCCT
201961	ATCTTTCCAG	TCAGTTCACC	ACATTTCCCT	TATACCTTTG	TACTTTAATC	CCCAGTCATG
202021	TTGAACACTT	CTTATTCCCT	ACACCAAGCC	TCAACGGGTT	TGCTCTTTCT	GGAAGGTGCT
202081	TCCCCTGTAT	TACTGACTTA	TTCATAACCAC	ACATGGAGAC	TGGCGCAGCC	CTGTTCTGCC
202141	TGGGAAGCCT	TCCCCTGATA	CCCCTAGTTG	CGAGGAGTCT	TCATTTGTTC	TTTCTAGTCT
202201	ACCTGTGCAA	GTTTGTATTG	TTCATGTTTA	TCATCCTTCA	TTCTAGTTGT	CTGTCTCTAT
202261	GTGTGGTCTC	ATTCACTGGA	CTCTGAACTC	TTATGAAGTC	ATGTCATGGG	TCAGATCTTA
202321	ATAAATTAAT	ATTGTCGGAA	GCTAATGTCA	TGTCTAGAAT	ACAGAAAAAT	TATCAAAAAA
202381	AAATATAGTA	TGTTGGCTGG	GCGCAGTGGA	TCAAGCCCGT	AATCCCAGCA	CTTTGGGAGG
202441	CCGAGGCAGG	AGGATCACAT	GAGGTCAGAA	ATTCAAGACC	AGCCTGGCCA	AAATGGTGAA
202501	ACCTCATCTC	TACTAAAAAT	ACAAAAAGTA	GCCAGGCGTG	GTGGTGCCCA	CCTGTAATCC
202561	CAGCTACTCA	GGAGGCTGAA	GCGGGAGGAT	CACCTGAACC	TGGGAGGCAG	AGATTGCAAT
202621	GAGCTGAGAT	CATGCCACTG	CACTCCAGCC	TGGGCGACAG	TGAGACTCCA	ACTCAAAATA
202681	ATAGTAATAA	TAATAATAAT	AATTGTATGG	AATTGAACTG	CTCTGATTGG	AAATAGCTGT
202741	TTTTTAAAAA	ATTATTATTT	TTTAAGTTCC	TGGGTACATG	TACAGGATGT	GCAGGTTTGT
202801	TACATAGGTA	AACGTGTGCC	ATGGTGATTT	GCTGCACCTA	TCAACCCATC	ACCTAGGTAT
202861	TAAGTACAGC	ATGCATTAGC	TCTTTTACCT	AATGTTCTCC	CACACCCCCA	CCCCATCCTC
202921	CCCCAACAGG	CCCCAGTGAG	TGTTGTTCCC	CTCCCTGTGT	CCACGTGTTT	TCATTGTTCA
202981	GCTCCCACTC	ATAAGTGAGA	ACATGAGGTG	TTTGGTTTTT	TGTTCTTGCC	TTAGCTGTTA
203041	ATGTCAGGCC	AGAGAGGCTT	AAATTTTTAA	GGATCTCTGG	ACTTTTCTTC	TACATTACTC
203101	TTGATGTTTA	TAAATGTTAC	AACTTCTTTA	ATTTTATTAA	ATGTATACCT	TATTGAGTTG
203161	ATTTAACTGA	GTTAACTTTG	TTATATGAAA	ATCATGATTG	GGAGTGAGGG	GGTTAAACCA
203221	GCTACAGAGA	TCTTGATTGT	TGGTGGTGAA	GCAATGCAAG	AATTCATTCA	TTCAGTAAAC
203281	TAATGTTTAT	TAAGCGTGTA	CTGTCTTAGT	CTGTTTACAG	TGCTGTAAAC	AAATATCATA
203341	AACTGGGTGA	CTTATAAACA	ACAAAAAATT	TATTTCTTAC	AGTTCTGGAG	GTGGGAAGTC
203401	TAAGATTAAG	GCCCTGGCAA	ATTTAGTGTC	TGGTGAGGAC	AGGTAGCCAT	CTTTTGTCTG
203461	AGTCCTAACA	TGGCAGAAGG	GTTGAATAAA	CTTCCTTGGG	TTTCTTTTAT	AAGGACACTA
203521	ATCCTAGTGA	TGAGGTTTCT	GCCCTCATGG	TATAACTACT	GCCCCAAGAC	CCCTCCTTCT
203581	AATATTATCA	CTTTGTGGGT	TAGGATTTCA	ACATGAGTTT	TGAGAGGATA	CAGACATTTG
203641	GATCATAGCA	CACACCATAG	GACAGACACT	GTGCCAAGAA	TTGTGGATAT	AGTGATTCTC
203701	AAAATGAACA	AGATCCCCCT	AGAGAGCTTG	CAAAATCCAG	CTATAAAATT	ATGCTTTTTA
203761	AACAAATTAT	GCAGTTTGAA	AAATCTACTC	TGAATCTTAC	TTGTGGCATT	GAATACTTTC
203821	GGCCACTCTT	TCCTTATTAT	ATTAAATATT	TACTCTTGTT	TGGGGGATCC	AGTCTCACCT
203881	ACTTTTTCTA	CCAGAACTGG	TATCAGCTCA	TGCTCTGCCT	TATGCAAATT	AAGAAAATAT
203941	CATACCTTTT	GGGTAAATTA	AGCCAAGAAA	GTTCTCCTTT	CTTCTCTTTT	TCTCTTTCTT
204001	TCTTTCTCTC	TTTCTCTTTC	TTTCTTTCTC	TCTTTTCTTT	TCTTTCTTTT	TTTCTTTCTT
204061	TCTTTCTTTC	TTTCTTTCTT	TCTTTCTTTC	TTTTTCTTTC	TTTCTTTCTT	TCTTTCTTTC

Figure 9 (Page 63 of 74)

152/162

```

204121 TTTTCTTTT TGACAGGGTC TTGCTCTATT GCCTAGGCTG GAGTGCAGTG GTGCAATCTC
204181 AGCTCACTGC AGCCTTGAAC TCCAGGGCTC AAGCAATCCT CCTGAGTAGC TGGGACTATA
204241 GGCATGTGCC ACAACATCAA GCTAATTTTT GCATTTTTTT GTGGAGACGG GATCTCCCTA
204301 TGTTGCTAAG GCTGGTCTTG GATTCTGGG CTTATGCGAT TCTCCTGCCT CAGCCTCCCA
204361 AAGTCCTGGG ATTACAGGCA TGAGCCACTG CCCCTGGCCA TTATAACTAT TTTCATTGGC
204421 TTATCAGGCA CATGATAACT ATAATAAATC AATAACCAGA ATTTTAAAT AAAGAAAGGA
204481 AGGAATTGTT TCAACTCTTC CTGCTACCCC TCTATCCCTC AAAAGGGTAG GCTGAATGTT
204541 GTCTCCAAA GATATCCATG TCCTAATCCC CAGAACCTGT AAATATATTA CCTTATATGA
204601 CAAAAGGGAC TTTACATGTT TAATAAGTTA AGAATTTTGA GATGGGCAGA TTTTCCTGAA
204661 TTTTGAGAT GGGCCCTAGT GTAATCACA GGGTCCTTAT AAGAGACAGG CAGAAGAGTC
204721 AGAATAAGAG AAAAATACTT CAAGATGTTA CACTGCTGGC TTTAAGGTGG AGGAAAGGCC
204781 AAGAGCCAAA AAATGCAGTG GTCACATAA GCTGAAAAGA AAAAGAAATG GATTTTCCCC
204841 TAAAGCCTCT GGAGGGGGCA CAACCTTGCC AATACCTTGA TTTTGCTCA GTGAAACCCA
204901 TTTTGACTT CTGACCTTTA GAAGTGTAAA TAAATAAATA ATTTTGTGTT GTTTCAAGCC
204961 ATCACAGTTG TGGTAATTTA CTACAACAGC AATAAAATAG AATTAAATAC AGAGATCTGA
205021 GGAGTTGAGT AGGATAAGCC TACTCCAGCA GGTATTTCG GGAGTATGGT GAGACTCACT
205081 AGGATGGCGG AACTCAATTA AGGAAGTCTG AAGCTGATAA GCCAGAGAGG GAAGGCTCTC
205141 ACTTCATTTT ATAAGGGTTG CGTCACACTA GGAAGATCCA ATAGCAACCA CAGTCTCAAA
205201 ATTAATGATT ACAAATAGGA CACAATTCCA AGAGTCGGGA GCCAAGCAGA AAATGGATTA
205261 GGGAAGACAT GGATGATATG AAACAGGAAG GAGGGGTACA AGGCAGCTTC CTGGGAAGTT
205321 GCCAGGGCAG TCACAGTTCA CATTATTAG GCTGTGGGCA CCAAATGCAT ATGGAAATC
205381 TAGCTGACTT AACTGAACTC CTGAAGAGGA ATGAACACCT CATTTATTGA GGAGCTACTA
205441 CCAATTAGAA TATGTATTTT ATTTGTTCAA TAACCCCATG AGTACAGTAA CACAATCCTT
205501 GCTTTACTAA AGCGGAAGCC AATTCAAAGA GGTTCAGTGA CTTGTCCAAG CTCAGGGAAA
205561 ACACTAGGAA GTGAATATGG GTCTGACTCC ATCACTGATT TCAGGAGCCC TGCCCTTTCC
205621 TCCACACCAT GCCCCCTTGC TTTCAGAAAA AAAGGCTTGT TGAAGTGAATG GTTGATGCA
205681 CAGTTCAAAG CAGAAACACA CGATGACATC TTTTGAGATA CTCTAACAGT GAGAACTTGA
205741 AAATGAAGTT AAAAATTAAG CGGCAAAACC AAGCCGAGGC TTTCTGAGAA AGTGGGGCCA
205801 AACCTGTTGC CGTCTGACTG CCACGTGGCT CACTATTTAT CCTGTAAAA ATCTGCAAAA
205861 GTATTTGAAA GGAAGAAGG GACAGAAAAC TCCCTCCTTT TCCAAGTTAG CCTTATAGTC
205921 TAGGGCTTAA AATACTGGTT TAATGGTGAA GGTAAGTGCT TTTCTTCTTT TTGGGTAGAA
205981 GGATTATTAC TAACTTACCA AAGGTCCATT AAGGGGAGGG AACAGTTTTA GGAGAAGTCA
206041 GAGAAAAGAC ATTAACAGCA ACATAAGGAT CTCCATCTGG TAATATTGCC TAATTCCAAA
206101 ATGAAGAGAC TCTCTGAAAA AGATAACTGA TTCAATGAAG ACCCTAGGGC AAGGCTTGAG
206161 AAGCCACTGG TACCAATGGA CACTGTGGAC AATGGTCATT TCTCCAAGGA CGCTGTGAGT
206221 ATTAAGTGAT ATGCTGTGAT TAGTCAGACT GGGATTGGCT GTGGAATGAA ATACTGATCA
206281 GAAGTACAA GATTTGTGTT TGGGACTGTG GCTAACGAGT CTTTTAGAC TTCTATATGA
206341 ATTTGAAATG GTCTCTCAGG AAAAGGAGAA CATGGCCGGG CCTGGTGGCT CACGCCTGTA
206401 ATCCCAGCAC TTTGGCAGGC TGAGGCGGGC AGATCACTTG AGGTGAGGAG TTTGAGACCA
206461 GCCTGGCCAA CATGGTGAAA CCCTGTCTCC ACTAAAAATA CAAAATTAG CAGGGCGTAG
206521 CGGCGCGTGC ACCTATGCGC ATGCATAGTG CGCGTGCCAG CTATTAGAAA GGCTGAGGCA
206581 GGAGAATTGC TTGAACCCAG GATGTAGAGG TTGCAGTAGT TGAGATCATA CCACTGCACT
206641 CCAGCCTAGG TGACAGAGTA AGACTCTGTC TCAAAAAAAT AATAATAATA AAAGAAAAGG
206701 AGAACATGAC CAAAGTTATG AATAAGACTG AAGGCAAGAA AATTGTACGC TTGTAGAGAT
206761 CACCTAGCTT GTTGCCCTCA TTGTACAGCT AAGAAAAGGC ACCCAGGGAC ATTGTGGTCA
206821 GCACCAATTT CTCAGAAAGA TAGGCAGATG ATGAGAGGGC CCTCAGTTTT TCTAACACTG
206881 AAGGAATTGC TTCTATGTTT TCTGGTGAAC TCCTCCCCAC TCATCTTGAG GATTCCAGGC
206941 CAGAAGAATC CACTTTAAAA AAGAAACATT TAAAACCAAT TTAACAACCA ATCAAAGGCA
207001 CTTTTATAGA AATACATTTT ATTTGCTGTT GGCCTGTATT TATGGATCTG AGAGGGCTAG
207061 ACTGCCAATA TTGTGACTGT TTATTATTAT TGCTGTTGCT AGTATCTAGA ATATTATACA
207121 ACATATAACA CTTTGCAATT TACGAGGCAT GTCTCATACT TTTGTTTTCA CTCCAACTG
207181 CCCAGTGAAG TAACATTATC CCAATTCTTC CTATGAAACA GTGAAAGCCC TAAGAGTTTT
207241 TGAAACTTTA CCTGGTTTAC TCAATTTGGG AATGGCAGAG CAGAATTCAG TCCTTGAATA
207301 TCCTCCCACT GCAGGTTTAT GCTCTTTGAT CTAGGTGTAA CATTTACTCT GAGTAAACTA

```

Figure 9 (Page 64 of 74)

153/162

207361	GGACTCTGGG	CTAACAGAGA	TGAAGCAAGA	CAGGCTGGAT	ATTAGGAGAA	TCTAAGAGCA
207421	ATCTAACGAC	CATTATAATA	AAATCATGAG	TTCTAGACTT	AAAAAAGGG	AAAAACCTGT
207481	TTTTTTGCTT	ATGCGTATAC	CATAATATTT	ACATTATTTA	TTTTTTTCTC	AAATTCAACC
207541	TATACGGTGT	CAAGTAATTT	TTTTTAATAT	AACATTTTCC	TTTAACTTAA	TTTCAATTCA
207601	TTTTTCTGTG	TCTACTTACA	ACTTTGGCAC	TAGAATTCAC	AATTTTTTTT	TAGAGGTATA
207661	TCTCCTTAAA	GGGAAGGGTT	CTGACACTGT	TACATGTTCT	CAATTGTTTG	CAAATAGGTT
207721	AATAATTATT	CCAGTGTCTC	TAAGTACATA	TCAACCATGC	CAGTGTTCAG	CCTCCATAAT
207781	TTTATTAGCT	TCTGTGCTTA	TTTTGGAAAA	ACATTTCCCA	TTACCATGAA	AGACCTCAGT
207841	TTAGGATGGT	TTGGTATGTT	AGCCTGATTT	CTGCATTCGT	CTCATGCAAA	GGAAAATAGG
207901	AAACGAAGAA	CTGAAATTAC	CTATTGATAC	AAAATCAAAG	TAGCATTTGA	AACCATAAAA
207961	CTTAAGTAGG	GCTTTTCATC	CTTTCTCGTT	AGACAGCAAC	AGAGAATGGG	AAGAAAAACT
208021	AAAGTGATGG	GTTTGTGATA	CAATTCCAGT	AACATAAAGA	GCAAGGAGAA	GTAGTTTTGT
208081	TGTGTTTTATG	TTTAATATTC	AAAGCTCAAC	CTAAAAGTAT	TTTTCAATTAT	CAAACCTCCT
208141	TCTAGAATAA	ATGATTAAAA	CTTGATTTAA	AATATACAAA	TTCTCCTTTA	TAATACCTCA
208201	AAATGGAGCT	ACCCCATGGA	GTTTTAAGCT	TGTGATTAAA	ATATTACGAA	AACAAAGGGG
208261	AAGTTGTAAT	AGGTAGAACA	AGCAGTAGTC	TAGGCATTAG	GGGATCTGGT	GCTGGCTCTG
208321	TGCATCATGT	GGTTTCAGGC	AACTTTTCAA	ATTTTCTACG	CAAATTTTCT	TATCAATAAA
208381	ATAAACAGTT	GGGCCAGAGG	ATCTCTGAGT	CTCTTTCAGC	TTTCAGTGT	TATAAGATTG
208441	GAGAAGTTGG	TGGGAAAGCT	TTAAGTGGAG	TGTAAGTAAT	TGCAGCTGCA	TGTACAGTTA
208501	AAGAGTTGCC	TTCAGCCAAG	CCACGGGATC	TTGCATAAAA	AGTGAAATCA	AATAGAAAAT
208561	GGTCCAAACT	CTGGGTTTGA	CCACAGATGA	CTTCAGCTAG	GATCTGAGTG	TAGAGCAATG
208621	AGCTGAACTC	CTGATATCCA	GATGTTAGCA	AGACTTGGAG	GCCTTCTAAG	GCAGAGCAAC
208681	AACCAGTATC	TGTCCTGGTG	CTGACCTGAT	CTTACTAGCA	ATTGGGCCCTC	CATTTGGGTC
208741	CATTGTACAA	AACAACAACA	ACAACAACAA	TAAAATCTCC	AAACACCCAA	AATTCAAAAT
208801	TTAGATGGAG	AGATACTATT	CCCAGAATTC	TAGAGATATT	TGGAAAGCAG	AAAACATATC
208861	TTGCCATGCT	GATGAAGTCC	AATTATTGCT	CTTTTAAATA	CATTTAGCTA	CTTCTGAATA
208921	TAAAATGAGT	ATCTACTAAT	TATTTACAAA	ATCACTTGGT	AAATATAGAA	AGTCACAAAG
208981	AATGAAGTGA	TCATCCTGTT	TTGTAACCCA	GAAATAGTCA	TTACTGGCAC	TTGTGTGAAT
209041	CAGTTTCTAT	TCCTGTATGT	GGATGTGCAC	AGCGTATCCT	GCTTTGTACA	CTAGAGTACT
209101	AGCATTTTTT	TAATGTAATT	CAATATTGTC	GAAAACATTT	TAAAATAGCT	TCCATCACAA
209161	TAATCTATCA	AATTGACTTG	CCAGACTCTC	ATTATTAGGT	TAATTTATCT	CTAACATTAT
209221	GCAGTCATGA	GTAATACTAC	AAAGGATATT	TTTGGACACA	ATTTTTCATC	TATGCCTTTC
209281	TTTATAATCC	TTCATCCTAA	GGTCACAGAT	TATGAATATC	TTTAAAGTAC	GGACAAGTCT
209341	TTTAAATTTT	GTGTGCAAAA	ACAGTGCAAA	GCCTTGAATG	ATAAAATAGA	GGTTTGATAT
209401	ATGTGTTTTT	TTGTTTGT	GTTTTGAGAC	GGATTCCCTGC	TCTGTCCCCC	AAGCTGTAGT
209461	GCAGTGGCAC	GATCTTGGCT	CACCTGCAACC	TTTGCCTCTT	GGGTTCAAGC	AATTATCCTG
209521	CCTCAGCCTC	CTTAGTAGCA	GGGTCTACAG	GCATGTGCCA	CCACACCCGG	CTGTTTTTGT
209581	ATTTTTTAGTA	GAGATGGGGT	TTCACCATGT	TGGCCAGGAT	GATCTCGAAC	ACCTGACCTC
209641	AAGTGATCCA	CCCACCTCAG	TATCCCAAAG	TGCTGGGATT	ACAGGTGTGA	GCCACTGCAC
209701	CCGCGCGATA	CATGTGTTTT	TAAAGTCACA	GAAATTTTCA	ATGCTTTGAA	GGATTTTAAG
209761	CAATTTAAAA	AATAAAGTCA	TAGAAGCTTC	AATTTAGGAA	TGAATGGAAA	ATTGATGATA
209821	TTCTTAGGAT	ATGGATTTTT	CCTAAAAGAA	ACAAATGTAT	GCATCCCCAA	AGATAATTTG
209881	ATTAGTATAC	AAATATTAAA	TTAAACATGT	CCATATTTAG	AGCCATGAAT	TCTCTTTGCC
209941	TGTCACAATA	GCTGGATTTA	TTCACAATTG	TAGTAATTAG	TCCCTGTTCA	TTATAATTTT
210001	CTAGGTGATA	TGAAGACTTT	GTCAGTCCAA	GCAAGTGTCC	ACATTGTGTG	TAGCAAACAT
210061	GAGAATAAAC	ATTTTAAACT	TTTAAATGTA	ATACATATTA	GTGTTATGTA	ATGTCATCCT
210121	TCATGTTCCG	AGGCACATGG	AACATTGTTT	TGGTGGTACA	GAGGGGAGAG	AAACACCATC
210181	AGAATGAAAG	GAAAGACCGC	TCTGGAACCT	TCCTCCTTAG	CTCTTGAGCT	TAGTTTAATT
210241	GTCCTGTCTT	ATGGTCTGCT	ACAAGCAATA	CCACTCTTCA	CCTTCGCATG	CTTCTCTGTG
210301	GTTTGATAAA	GTACATGCAA	TTTTTCATTT	AATTCCTCCA	GCTGCACATA	GAAAGGAGCC
210361	TTATCTTTAT	TGAACAGATG	AGGAAATGAA	TGATTAGAGA	ATTTAAATGA	CTAGCTCTAG
210421	GTCACACAGC	TGGAACCTAC	AGCCAGATTT	CCTTTTAAAC	ATCCTGTAAC	CAAAAGCATA
210481	CCAGTAGTGC	CCCATAAAAT	GTAAGTTATA	GAGCTGTGTT	GGGTCAAAAC	TTTTACTGAT
210541	GCTAAGAGGA	GGCAACATTA	ACAAGGGGAA	ATTATTTGTG	TATTATGTTT	TGGATTATGT

Figure 9 (Page 65 of 74)

154/162

```

210601 TCTCTCCATA GATAAAAGAC TGTCGTAGTA AAAGAGATTC AGGGCACAGG GAAACTCCAC
210661 CACAAAGCGT GGTACCATTT CCCACAGAAG CTAAATGGAC GGGGAAGCCTG CCACCAGGAA
210721 AGGTAAAGCC ACTGCTCTTG TTTGCAGGCT ATGTTAATAA GCTGAAGCTT ATTCCGACAC
210781 ATTTACACAT CTCTGCATCA CACTGACCCT TCGTAAAGAT ACTCCCAGTG TAACATTGGA
210841 GCCAGCTCCA GCCCCTGATC CTGTTGCTTT TTCCTTAGCC CCATGAAATC ATCTGCGAGA
210901 AATTAAGCCA AATAAGCAAT AAATCCTGGG ATCTAGGGAG TGGAATAAGT TTTGGGAAAG
210961 TCTTTTTTTT TTTTTTTTTG ACTGAGTCTT GCTCTGTCTC ACAGGCTGGA GTGCAGTGGT
211021 GCGATCTCGG CTCACTGCAA CCTCTGCCTC CCGGGTTCAA GTGATTCTCC TGCCCTCAGCC
211081 TCCCAGTAG CTTGGACTAC AGGCACACAC CACCATGCCC AGCTGAATTT TTGTATTTTT
211141 AGTAGAGATG GAGTTTCGCC GTGTTAGCCA GGATGGTCTC GATCTCCTGA CCTCGTGATC
211201 CACCGGCCTC GGCCTCCCAA AGTGCTGGGA TTACAGGCAT GGGCCACCAC GCCTGGCCCG
211261 GGAAAGTCAT TTTAAACCAA CCTATGTATG AATCCCTACT ATAATATTCT CACCAAGCGG
211321 CTGGCTCTTT CTCCTGAGCT TGGAAACCTC CAGTAAATG GAAATAATTA TTTCCAGAC
211381 CACCACTCTT ATCTGTGAGC TTTTGTGGCC ATTAAAAATT ATTTCTTCCA TTATATTTTT
211441 ATCTGTGTCT TCACAGGTTT TCTCTTTCTT TCACTTTAGT GCTTTTCTTC AAATAAGCAG
211501 GAAAAATCCA ATCTATCATG CACTATGGGA CCCTTTCAT ATTGGTCTGT GGTGTGTCCA
211561 TTTTATGGGG ATGCTTTTAA AGAAAAAATT TGTCTTTTCA ATATATTGAA TATCTTCCAG
211621 CACCACATCA CCTGCAAGCT TTGTAAAAAT AGTTCTACAT ATTAATTTTT TTTTTTTTTG
211681 AGATTGAGTC TCATTCTGTC ACCCAGGCTG GAGTACAGTG ACATGATCTT GGCTCATTGC
211741 AACCTCTGCC TCCTGGGTTT AAGTGATTCT CCTGACTCAG CCTCCGAGT AGCTGGGATT
211801 ACAGGCATGC ATCACCATGC CTGGGTAAAT TTTGTATTTT TAGTAGAGAT GGGGTTTACC
211861 CATGTTGACC AGGCTGGTCT CAAACTCCTG ACCTCAAGTG ATCCACCTGC CTTAGCCTCC
211921 CAAAATGCTG GGAATACAGG CGTGAGCCAC TGCACCCAC GIAGTTTTTT TTTTTTTTTA
211981 AGTTGAACAT ATGTGAAGGC AGGACCTAGT GACACATAGC AATAACATTT CCAAGTAGAC
212041 ATTACACTAG GGAATTAGTC AAAGTGCTCA TTTAAAGTAC CATCTCTCAA ATGTATTAAA
212101 AGAGAATCCT TGGATGTGCA ATACCTTAAT TCAAAGGCAG CTCGTTATGT ATAAACTCTC
212161 AAGCTTTGTG ATAAACAAAT GTGCATAACA GATGGGACTA TTGACTTACA GCCCAGGGAA
212221 TTTTATTGAC GCTGAGAAGG TTATGTGACT GGCTCTGCCA CTGTCATCCC CATTCACTTC
212281 ATTTTGGAGC AATATGACAT AAATGCCTTA CATGTGGGTT TTCTCTATTT ATCATGTGTT
212341 TCCTATCCCC TTGAAAGATG GCCATATTTG CTTTACTTGG TTATAAGATC CCATATTGCG
212401 TGTCTTGAAG CCAACCAAAT AATTTGACAA AGTGGGTTTG TAGTGCTGGC TATTTTGGTG
212461 AAAAAAAGAC AATGAGACTT CATGTGTCAT CCAAAGTTCT ATCAGATCGA GCTGTGAGAG
212521 AAAGGAAAAG AAAGGGGTCT CAGTCAGGAT GCTCACTGCA TACATCTGTG TTGTTGTCTA
212581 GGTCCAGATT TCTGTTTATT ACGCTATGGG CTGGCTCTTA TCATGCACTT CTCAAACCTC
212641 ACCATGATAA CGCAGCGTGT GAGTCTGAGC ATTGCGATCA TCGCCATGGT GAACACCACT
212701 CAGCAGCAAG GTCTATCTAA TGCCTCCACT GAGGGGCCTG TTGCAGATGC CTTCAATAAC
212761 TCCAGCATAT CCATCAAGGA ATTTGATACA AAGGTAAGTA TGATGGAAAA TAGGGCTCTT
212821 TGTTGAGAGA AAAAACTTTG AAAGGAAGGC ATAGATCTTG ATTCTGTGGA GTATGGAAGT
212881 ATACATTTCC AATGACAAAT TAAAACTGAC TGGAACTATT TTTCTTTGAG ACATTGCTTA
212941 CTTCAATAAT AAAAAATAAGA TTTCAATTGAG GTTATTATGA TTATAAGGTG GGGGAACTGT
213001 AGAGTTAAAT GTGAAAAATT TAAAAATGGA ACAGTTTATG TGATGTCTTC AATGAAAAAC
213061 TAGGTATTAC CTGGGCACAT TCTTATAGGT TACTCAATCC TATTCAGTTC TCTGCCTGTT
213121 TTATTGTTTT TGAGCAATTT TATATCCCTG TAAATCTAT ATAACCAATA GAAATGCAAA
213181 CGATTCTTGT CCATAGCTTT GCAAATAAAT TTTGCCAAGA GAAAAATCAG TTAACACTTT
213241 TCTCCACTCA CCTCCCAGTT GAATTAGCCA ATTTTGCTGT TTGTTTGTGT GTTTGTTTTT
213301 TGAGATAGAG TCTTCTCTG TCATTCAGGC TGGAGTGCAG TGGCATGATC TCAGCTCACT
213361 GCAGCCTCCG CCTCCCGGGT TCAAGAGATT TTCCTGTCTC AGCCTCCCAA GTAGCTGGGA
213421 GTAAGGGGGC ATGCCACCGC GGCTGGCTAA TTTTGTATT TTTAGTAGAG ACAGGGTTTC
213481 ACTAGGCTGG TCTCGAATC CTGACCTCAG GTGATCCACC CGCCTCGGCC TCCCAAAGTG
213541 TTGGGATTAC AGGTGTGAGC CACTGTGCCA GGCTCTGCTG TATATTTAAA GTCTATTTCA
213601 GCATTGCTTC CTGCTTGTGT TATGCGTGAT TCTTTGAGTT TTCCTTTGAA CCAGTTATAA
213661 CATCTTACTT ACTTCTCCA TTAATCAATG AGTTAAATAA AATCTTTGTT GTATGTTTAT
213721 TTTACATTTA TATGAAAACC ATGAATTTAC CCAATTAAAA AAATTATCCT TTAAATTATC
213781 TTGTACTGTA CATTTCCCAT GTCATCCCTA TAATTCATGA TTAATGATTT TATTACATTG

```

Figure 9 (Page 66 of 74)

155/162

```

213841 GACCTAGCTT ATTTACAATG AGTACATAAA TTTATTGTCT CCAGTCTTTC CTCCATTATC
213901 CCGTCTACAT ATCCCACTG AGTAGATTCA CTA CTCTCAGGA ATCTTGGACA CCTTCAAGTT
213961 GCCAAACATG CAGTGTTTAC TGGACATGCT GTGTTCCCTC AGAATTTGGG CCTGCTTCTC
214021 AGCACACTCA CATCTGCTAT CAATGACCCA TGGAAAAGTTT TTGCCCTGAG CAAGCCAGAG
214081 TCCCTGTTAG TTTCTTCCAA ATGCTACAAAG TTCAC TTTTG CTATTTTTTC CGATGAGATA
214141 AAATTTTCCT TTTTGACTTT CTACAAATCA TAGTCATTTT TCAAGGGATA GTTCAAGTAT
214201 TGCTTCCTTT CTGGGACCTT CCCAAATTAT TATTTTCTCC TCTCAAAGTC TCTGTTTTAT
214261 TTATGTTTAT CCTCAAATCT TGATTCTCAC ATGAATCATA TACCTTGAT TATTTATAGT
214321 TTTTTTGAGT AGGTAAAATA TTTCATATTT TATATCTTT GGCTCTCTAC TTTATAGCAT
214381 GATGCCAGAT ATTTAGGGGC CTTACTGCAT TTATTTTTTA TTTTATTTTA AAATCTATTT
214441 TATTTTTTAT TTATTTATTT TAAATCTAT TTATTTTTAG GTAAATATTC AGGTAATATA
214501 ATTTATGTAA TTATTTAGGA ATTTAGGTA GTTATTTTAA AATAATTCAA ATTATTTATT
214561 GAGTTATATC AGAAGAATGT GATCTTATTC ATTTGTAATA TGTGTTTTAG GAACTCAGTT
214621 CAGCCAGGGC AGACCATAAT TCCCAAACTT GACTTTTCTT TTAATTAGG CACTGATTTT
214681 GGTAAAGAGT TCAGTAAAGT TTTGTGTGTG TGTTTTAAAA AATCTTTTGA TATAAGAGTC
214741 AAGATGTTAC TCAACTTTTA CTAGAAGCAA AATAGAGGAA GTGCTTTCAC AGATGAAATA
214801 TCTCTCAATG TTTCTTCCA TTTACTTCTT CCTATTATTC ATCTATATAA TCATTTTCTT
214861 TACCTCTTTT CTTCA TTTCT TCTGTTTTTC TCTCCTACTA AGACAAGCAA ATTAGGGGTA
214921 TAATTGGTTA TTTGGGAAGG TAGGAAGAAT ACAGAGAGAA AAAAAATCA ATATTTTATA
214981 CTAGGGTCTC ACTAACCTCA AGCAACTCTG ACTGTAAAGT AGATTTTCAT AATAGGACTT
215041 CTTGACAAAG AGTTTTCCTA TTTTCCCTCC AGGCCTCTGT GTATCAATGG AGCCAGAAA
215101 CTCAGGGTAT CATCTTTAGC TCCATCAACT ATGGGATAAT ACTGACTCTG ATCCCAAGTG
215161 GATATTTAGC AGGGATATTT GGAGCAAAAA AAATGCTTGG TGCTGGTTTG CTGATCTCTT
215221 CCCTTCTCAC CCTCTTTACA CCACTGGCTG CTGACTTCGG AGTGATTTTG GTCATCATGG
215281 TTCGGACAGT CCAGGGCATG GCCCAGGTAT CCAGATACTT TCTCATTTCT GTCTGGGATCC
215341 AGATTTCTGA ATTCTACAAA ATATCAAAGG TCTTAATGAT TTTCA TTTTCA GGGAAATGGCA
215401 TGGACAGGTC AGTTTACTAT TTGGGCAAAG TGGGCTCCTC CACTTGAACG AAGCAAGCTC
215461 ACCACCATTG CAGGATCAGG TAAGTGTGCA CAGATGGGTC ATAGCTTTGT CATCTGTTCC
215521 ATCCCACTGT GTCTTATCTT CTATGAATCA AATGGTTTGG GGAAGAGAGA GAAAAAGTAC
215581 TGCTGAAAAA TTCAACAATA TAAGACACTT GCATCACAAA TAGGAAAAGAT GCATCTGTGC
215641 AGTAAAGACA TTGAAGCTTA GAAGTAGAAA AAACCATTGT GAGCTAGGTT TCAGCTCAGA
215701 AAAGCCTTAG TAGTCAGAAA AGCCTTAGTA GTCAGAAAAG CTTGTGCGGA AAAAGTTTAA
215761 ACCTTTAAGA ATTGCACACA TGGAAAAAGA TCAAGTAAGC TATATATACA CCATCTTAGC
215821 AATGATTTTG AAGTGAGAAT TAAGGCTACC ACAGCTCCAG GTGGTAAGGA GAGAAATCAG
215881 GCTGGAAGAG TTTGAAGTTT CTGTATTATT CTAAGCTCTT TACTATTCTA TTATGAGCTC
215941 ATTAATTCTC ACAACAACCC TCTCATATAA GTACCATTTT AAATTCTTAT TTTACAGAGA
216001 AGGGAGTTAA GGAAGGTGGA GATTAAGAAA ATTGCCCAA TACAAATAGC CAGCAGGTGG
216061 TAGGTCTGAG ATTTAAGCCC ATGCAGATTT TAGCCCCAGA GCAGACATTC TCAATCACTA
216121 TGCTAGACTG CCTTCCATG GTATGTGATC CTA CTCTCAGGC CTCTACAGCT TTATCATTGC
216181 TGTTCTCCCC AGCCTGTCGT GCTGAGAGTA TATACTCGAA GAGCAGAACT AAAATTCCAT
216241 CCAGCTTCTC ACTCCTAGGT CCACTACACA GCTGCATCCT GCAGACTTTT ACCTCAAGCA
216301 ACCCTCCTGC GTTCTTGCTT CCTTCCATCA TAGTTGTAAC CATCTCCTCT ATTTGCAAAT
216361 ACTATCTGCT GATCTCTCTC TTCTAGACTG GTTTCTTTCA ACCTTCTTCC CACCAAAACC
216421 AAGTTAGCTT GCTAAAATAA AGATGGCGCA TTTTACTCA CCCGCTTGAG AATTTTCAAT
216481 GTGTTCCCTT ATGCTTACAG AGTAAAGCCT GACCTCTTTA TTGCATGAAT ACAAAGTTC
216541 TTAGCCATCT GGCCCCAACC TTGTTCCACT CAACTCCCTT GTGCAAGCAT GGCTCCAGTG
216601 GCACTGGACA TTGGCTGCTC TCCACATAGA TCTGCACTGC ACTTCCCTCT GGCTCTGCTC
216661 CCGTTAGTTT ATATGCCTGG AAAGTTCTTT GCCCCTGTTT CTTGTGCCAA AATTCCATCT
216721 ATCCTATTGC ATAGCTTATG TAAAACTTC CTAAACCTTT TTTTTTTTTT TTTTTTTTTT
216781 TTTTTTTTTT TTTTTTGAGA CGGTGTCTCA CTCTCCGCC CAGGCCGGAC TGCAGTAGCG
216841 CTATCTCGGC TCACTGCAAG CTCCGCTCC CGGGTTCACG CCATTTTCCT GCCTCAGCCT
216901 CCCGAGTAGC TGGGACTACA GGCGCCTGCC ACCATGACCG GCTAATTTT TGTATTTTTA
216961 GTAGAGACGG GGTTC AAGC CAGGATGGTC TCAATCTCCT GACCTCGTGA TCCGCCGCC
217021 TCGGCCTCCC AAAGTGCTGG GATTACAGGC GTGAGCCACC GTGCCCGGCC AAAACTTCTT

```

Figure 9 (Page 67 of 74)

156/162

217081	AAATCTTATA	ATTATTATCA	ATTTATCCTC	AGATATACTT	CCACGTACAT	TGTAGTTTTA
217141	TTATATTTAT	ATTTTACATC	TTTTTTTTCA	AATTGCAGTT	TGGGACCCAT	TAGTGAGTCA
217201	TAAAATCCAT	TGAGCGGGTT	AAAATCATT	TTTTAAAAAA	TGAGTAGAAT	AGAATAGAAA
217261	TTGTTGGAGT	GCATTGGACA	TGGTAAAGTT	AAATATCGAT	TCATGAAACC	ATCGTTTGAG
217321	GCATATGTGT	GTGGTTGTAT	GTACAAGTGT	TTATGCATAT	TGGTGTGTGT	GTTATGTTAC
217381	CCTGTAAAAT	GCATTTCTTA	CTATAGGTCT	CTGTGAAATA	TGTGTCTTGT	TGTTTTTTAA
217441	TGTAGACTTC	CAAAGCCTAC	ATGGCATTTT	ACTAGTGACA	ATCAATTTTA	TTCACATTTT
217501	TCTCTCCAAT	TGGACCAGAA	GCTCTTTGAG	GGCAGGGGCT	GTATCTTACC	GATTTTTGTA
217561	AGTCTTTCAT	TTCTTGCCCC	TAGCCTCATA	TTAGATCATG	CAAGAATGCA	ACTGTAATCA
217621	CAAGAAAATG	CTAATGGGCT	GTGATAGCAG	AGAGTTACTG	TGACAAACTA	AGGGATTTAG
217681	ATTTGGTCAC	ATTGGTGTGT	AGGAGCCATT	GAAGAATCAG	AGAGTGTGTT	ACTATTATTT
217741	GTTAATTTTA	ATTATATCAT	ATTACTTTAC	TGGGGAAAAT	CTGTGAGCTA	TTTTAGAAAT
217801	AAATACTCTC	ATTGCCCAAT	AATTCCTAAGT	CTGCCACCTC	ACTGTTGGGA	CATTGTTTAG
217861	GGAGGCCACG	AAGTCTCAGC	CTTTGATATT	TTCATAAGTG	TTTTTCTCCC	TTTTTCCTTT
217921	AGGGTCAGCA	TTTGGATCCT	TCATCATCCT	CTGTGTGGGG	GGACTAATCT	CACAGGCCTT
217981	GAGCTGGCCT	TTTATCTTCT	ACATCTTTGG	TGAGTCACCT	TCTCTTAAAT	CCTAATGCCT
218041	CAATTTCCCTG	AGCATCCATT	TTGGCACCTA	CACCACCCAC	ATTCTTCCTA	TATGAAAGAA
218101	AATGTCCCTTT	ATCAAATGGA	AGATGATAAA	AAATGTCAAC	GGTTGGTATC	ATTTTTAATC
218161	TAGTCACACA	ACCTGATTAA	CACCTTCCTG	GTGGTCTGG	GAAGCCACAC	GCAAAAGGTA
218221	GAGGAGTTGA	CTATTCACAT	GGCACCCACC	GACTTGTGAT	GCAGTCTTGT	CCTTCCATAT
218281	CAAGCACCTT	CTGCAGAATC	TCTACCACCA	CATCTGAAGT	GCCTGCTATA	TGCAGTTAAG
218341	ATGTCAAAGA	TAGTGAAGTA	CATTTTCAAT	GTGTCTTCAT	ATTTTCATTAT	AATTATTATT
218401	TCTGTCCAAG	ATGCCCTTCA	CCTGTTCTCT	ACCAAGTTAA	TCTTGCAAAG	TTCAATTCAA
218461	ATGTTCCCTT	CCCCATGGGC	CCTTCCAGGG	CTTACCCTGT	CAGATTCTGG	CATTTCTCCC
218521	TTTATGATAT	TTCTCTCTTA	GGTTATGTTG	GTGTGTAATT	ATTTATTTCT	CCTTTTCTTT
218581	CCACTAGACT	GTGAAATGCT	TGAGGCAAGG	AATCCATTCT	ATGTTTTTCAT	CACCTGGGTG
218641	TCATCATGGT	GCCTGATTTT	TAGCTTTAAA	ATAAAAAGAAT	CAGTGAATCC	AGTAATTAGA
218701	GGGGATTTAA	AGAAAAC TAG	TCCTCAGAAT	CTTTTAAACAT	AGAATGTTCT	TCAAATAAGG
218761	AATTCCAATA	ATAAGACAAT	TTTCTACACT	TGATTTTGTT	TTTATAGCCA	AATGGTGTCA
218821	TTAAATATAG	TCCTGGCCTG	AATGGCTTTC	TCATTAATGA	TGCTAATTAT	TTTGGTTTGT
218881	ACATGTTAAC	CAGGTATTGT	ACAAAAATAT	TTCTTTTGGG	AATCCATAAT	GGATGTATGG
218941	CTTGAATACA	AATAATACTG	TCTCTTGTA	GTGCATTGGA	AATTTTTCCC	TGCCACATGA
219001	TTTCATGGAA	GGTTGTTTCG	TGTATGTATG	ACTGCAAACC	TGACTATTCA	GATCTTCCGC
219061	AACAAGACAA	CTTATGTGTG	CATTAAGAAG	TTGCTGCCCTA	AAATACATAA	CACGTGAATC
219121	ATTGGAGACT	TTAAAGTAAT	TAATCAGCTA	TGCAATGCCA	CGCTCCTGTT	ATCTCCAGAG
219181	GGCTCTGACA	TTGACAAATG	GTGGCTTTCT	ATTTGAGACG	TAATATCTAA	AAAGCTTTAA
219241	CAGGTTTGTA	GAAGGATTGA	AAGAAAGAAT	GGGAACATTT	AGGTCCTTAT	GGTAGAATAA
219301	GCATTAATTG	ATTAGTGTGT	AGAAGGGAGA	GGCATGCCAC	TTTACAGGAA	ACTTCTTCCC
219361	CCCAGTAAAC	AAATCTACCT	AAAAACTAAT	TTTATCCCTT	CTTCCCAGGT	AGCACTGGCT
219421	GTGTCTGCTG	TCTCCTATGG	TTTACAGTGA	TTTATGATGA	CCCCATGCAT	CACCCGTGCA
219481	TAAGTGTTAG	GGAAAAGGAG	CACATCCTGT	CCTCACTGGC	TCAACAGGTA	CAGTGCACAC
219541	CTTGTAACCTG	TGGCCCATGC	AGAGGTCTCT	AGGGCAGGGT	GTGGATCTCC	TCTGAGAGGC
219601	ACCATCTTGG	CTGCTCTAAT	ACTCATGCTG	ATTAGATCTT	TCTTTTCAGC	CCAGTTCTCC
219661	TGGACGAGCT	GTCCCCATAA	AGGCGATGGT	CACATGCCTA	CCACTTTGGG	CCATTTTCTT
219721	GGGTTTTTTC	AGCCATTTCT	GGTTATGCAC	CATCATCCTA	ACATACCTAC	CAACGTATAT
219781	CAGTACTCTG	CTCCATGTTA	ACATCAGAGA	TGTGAGTTTA	CTTCTTATAC	TTCTACGAAA
219841	ATGATAATGG	TAATAAGGAG	AAACAGTTCT	GTGTTACCTA	TTACATTCTG	GCTTTACATA
219901	TAACCATTAA	TTTAACCTTC	ACAATGACCT	TGAGAGAGGC	ATTGTTATAA	TTCCCTTTTC
219961	ACAGATGTGG	AAACAGGACA	CTTAGAGGTG	AGATAACTTG	CCCCAGGTTG	CACAATACTA
220021	AGTGATAGAG	CTGCTGCAGC	ATCCATATTC	TTAACCACCTA	TGCTATACTA	CCACACCAGC
220081	TGATTCCAAA	GCTTCTTTTA	GAAATAATAT	TGCTGGGCCA	GGCATGGTGG	CTCATGCCTG
220141	TAATTCCAGC	ACTTTGGGAG	GCCGAGGCAG	GCAGATCATG	AGGTCAGGAA	TGCAAGACCA
220201	GCCTGACCAA	TATGGTTTAC	TAAATATCAT	CTACTAAAAA	TACAAAAATT	AGCCAGGTGT
220261	GGTGGCAGGC	ACCTGTAATC	CCAGCTATTC	AGGAGGCTGA	GACAGGAGAA	TCGCTTGAAC

Figure 9 (Page 68 of 74)

157/162

```

220321 CCAGGAGGTG GAGGTTGCAT TGAGCCAAGA TCATGCCACT GCACTCCAGC CTGGGCGACA
220381 GAGTAAGACT CCGTTTCAAA AACAAAAAAC CCAAGAAATT AATATTGCTT TTATCTGGAG
220441 CCCAGAGTGA TGCAGCTTCT GGCCCTCTTA TCTGAGACAG TGTTCTTTTA GTGTGAAAAA
220501 GGATGCTAAT TTTCCCCCAA ACAACCCACA GTATCATGGG GGTAAGTTAA TGGCTGGTCT
220561 GTGTAAGTGA CAAATTTTGG TGCTAACGTA TCTCTATAAC TACTCTGTAT AAACCTCCTT
220621 CCTTCAGAGT GGAGTTCTGT CCTCCCTGCC TTTTATTGCT GCTGCAAGCT GTACAATTTT
220681 AGGAGGTCAG CTGGCAGATT TCCTTTTGTC CAGGAATCTT CTCAGATTGA TCACTGTGCG
220741 AAAGCTCTTT TCATCTCTTG GTAAGGATAA GCGTGTGGGC CCATTTAACC AATCCCTTTT
220801 CTGCACATGG TCTCAGAGGG TTCCCTGACA GCATGTCCTC ATTGCCCAGG GCTCCTCCTT
220861 CCATCAATAT GTGCTGTGGC CCTGCCCTTT GTGGCCTCCA GTTACGTGAT AACCATTATT
220921 TTGCTGATAC TTATTCCTGG GACCAGTAAC CTATGTGACT CAGGGTTTAT CATCAACACC
220981 TTAGATATCG CCCCAGGTA AGAGCTCTAC CTGTTTTTTC CCCTCCTCCA GACCCCTCCA
221041 GAGGTGTTAG ACCTCAGTGG TCGCCGTGAA ACTCTTTAAT GTTACTGACA TTGCACTAAT
221101 GGCAGAATGA CAAATAACTA CAAATATCTG TCTGTGGCCA TTTTGTAGAA AACAAATGTG
221161 GCATTTTTAG AACACAATT TCCAATCTTG GCCAGTAATC ATTTTGACAA AAACCTTCCC
221221 AAGCTTCCCT AACAGAGATT GAAGTGTGTA TGCTGGGAAA AGGCCACAC ACAGGTGATT
221281 TGGAAAAGTT TCCATGGTGT TGTTCATATT AGCTACCACA TATATATATA TATATATATA
221341 TATATATATA TATATATATA TATATATATA TACAGTCACA ATAAGCCAGC TCCTGTGCCA
221401 AGACTTGCCA TATATCAACA CATCTAATCC TCACAGTTAT ATTAGGTAGG CCCTATTGTT
221461 ATCCCCATTT TATAAGGGAG AAGGCTGAGG CACAAGGAGG TTAAATGGTG TGACTATGGT
221521 CACATAAAGG CAGAGCCAGG ATTTGGACTG GGGGAGTCTG GCTTTGGAGT CTGTGTCCTG
221581 CCCGTTGCAC AAACCTGGCTT CTACACTGAG CAGCCAGGGT AAAGAAACGT GGTTCACAGA
221641 GAGACTGCAT TGCTCCCTGG TTATTGACTT GGTAGATTGG TAATTTTCAGG TTTGGCAAAT
221701 AGACATTGCC CTGAATGTCT TTAGGTGAAT GAAAACTGC ATTAAGCAAA ATGACTTTGC
221761 CATTAGAGCT GAATTGCATT AAAGTTGAGT TGCTGCAGAA GCTGTAGGTG GCTTCTCTATA
221821 TAAAATCATT TATAAAATCA TCTTCCCATA GATATGCAAG TTTCTCATG GGAATCTCAA
221881 GGGGATTTGG GCTCATCGCA GGAATCATCT CTTCCACTGC CACTGGATTG CTCATCAGTC
221941 AGGTTGGGTC AGTTTATTGA ACATCTTCAA GTGGCAGGTA TTGTTTTAGG TGTTGGAGAT
222001 ACACACGGTG CTCTAAAGAT CTGGATGGCA ACACAATTAC TCTATTTACA TGAGCCTCTA
222061 AATCAGACTC TGGTAGGTCA GATTTCCAG AGGAAGAAAA ATATAAGCTT ATTTTCTCAA
222121 GATGAATAGA TGTTAGATTG ATTTAAATGA GCTGTTCCGG TGCAGAAGAC AGCACGTATG
222181 ACTTCCTAGA GGTACATGAG CATGAAACAG TTCTTAGTTA TGACCAGAAT GAAAGACACA
222241 TGTCAAGGAA TAGCAAGAGA CGAAGACAGA GGGGCAAAAG AAGATCATGA AGAATATGTT
222301 CAGACTAATC CAATTTTTAA AAAATCACAA AAGGGAAACA AAGTGTCTTA GGCCAGTTTA
222361 AAGATAATTT AATGTCTGGA AACAGATCGG CTGTGAGACA TTGCAAGGAG GCTTGCTCGG
222421 TGTTTGGAAA TGCAGGCTCA TGAGGAAGAT GAAAAGACAG ACCCAGGCAG GGATGGAAGG
222481 ACTGACTAGA ACCAACTTAC AAAGAGAAGT TTTGTTTTTA CTACATTTCT ATGTGATCAA
222541 GTTCCAGGT TAATATTTGA CTAACTGCT AGGAATCCAC TGTGACTATA ATGCTGGAAG
222601 TGACTTAGTA GGGCTTTCTG AGGAGGGTCA CACAGAAGAC CAAAGAGAAC TCATGTTGAA
222661 TTGAGATGGG TTATAGTGAT AGTTGTCAAC AGCCAATACA GAAACAAAAA AAAACAAAAC
222721 AAACAGCAAC AACACAACA ACAAAAAAAA AAAACAGAGA AGACACAAAC ACAATGCCAC
222781 AATGCCATTT TAGGCATAAT TTTAAATGAG TAATATTATA TGTTGAAATC CAAATTTTCA
222841 GAAAAACATT AGTGTATTTT ATTTTGTGTT AAAGAAATAA CCATCTCAAC TCAGAACCCC
222901 ATGTGCATTT TGGCCATTTT GTTTCCAATA GTTTCATAAA CTTTCTTAAG TAACACTGTC
222961 ACATTGTTCC TTATATTCCT TGTGATCAAC ATTGCAATAC ACAACTGGGA GGGCTACTAG
223021 AACTGGTGTA GAAGGAACTT GTGAGATTGA TCATTTTCTC TGTTTTTTTAC ATCTAGGATT
223081 TTGAGTCTGG TTGGAGGAAT GTCTTTTTC TGTCTGCTGC AGTCAACATG TTTGGCCTGG
223141 TCTTTTACCT CACGTTTGGA CAAGCAGAAC TTCAAGACTG GGCCAAAGAG AGGACCCTTA
223201 CCCGCCTCTG AGGACATAAA GTTACAAACT TAAATGTGGT ACTGAGCATG AACTTTTTTA
223261 ACATTTTTTA CTCTCTCCA TATTCCTGAC CATAGACTCA GCAGTTCTTA ACTCTGGCTG
223321 TGTGTTAGTC TTCCCTGGGG AGCCTTTATA AGACACTGAT ACTTGGGACC CACTCCAGAG
223381 ATTCTGAATG AATTGGTCTG GGGTGAAC CAGATACTAC TAATTTTTAG ATACTCCTTA
223441 GAGGTTTCTA GCATGCGCCC GGGGTTGACA ACAGCTGGAC AAACCTGAAA AGTCAATTCA
223501 TGTGGCCTTT GAATTTTCCT CATTGGAAAG TACTAAATAA ATAAAAATTC ATGTGAAAAT

```

Figure 9 (Pag 69 of 74)

158/162

223561	GATCACTGAT	AAATATCTTC	ATGGTGGGGC	AGGTTATTGG	ATGCAGAGAA	GATCTGCTCG
223621	GAATTGTAGC	CATATGTTAC	AGATCTCAGC	ACCGATCAGA	ACTGTAAAGC	TATAATCCCC
223681	AGAATTTAAAG	TTTTTATTAT	TTTTTATACA	TTGTAAAACA	TAGACGTTTA	TTTATGTGAT
223741	TAAATTCCTAT	TAAAATTTAC	ATGCTAAAAT	AAAATAGACC	ATTTTCAAAT	TATTTAGATC
223801	CAGATATTTT	CATCAGATTA	AACAGATATT	TATTTATCCT	AGCCCAATTG	CAAGAGATTA
223861	ATGATGAGAA	AATGACCAAT	ACAAGATTAA	ATAAATGAGG	TTAACTTAGA	AATCAAGGAC
223921	AGAGAAGATA	GAACTGGAAA	GCTTGTATTG	TGAGAAGAAT	GAATGTGAAG	GAAGGCAATG
223981	TAGACACTTC	CAGAAGGGAT	AGCAATATAG	TTTAGACCAT	ATAATGAAAA	TTGGAGAGAG
224041	ATGACAGAGA	CACTTTCAAG	TGAAATGACA	ATTTATATGG	GGGAGAAAAA	TATTGAAGAC
224101	ATAACAAGAT	GAGAAAAGGC	ATAGAAATGT	ATCACATACA	AGGCATAGAA	GTGTATCACA
224161	TACAAGAGAA	GTTTCCTTTG	AGCGTAGAAA	AAGATAATTT	AACCTTCTTC	ATATTTTTCT
224221	TACTTTCCCA	AGATACTCAG	ATAGGCGACG	TCAACTCTAA	CAGGAATTAA	TTTGGCTCCT
224281	AACACTTAAG	ACATATCCTT	TAGTTTGTCT	CCTCACACAG	AACTGATTCT	GGTTTTGCCA
224341	CAACATGTCT	AGAGAAGAAG	TTCCCACCAT	ATTTTAAATC	CTATTAAAAA	ACTGCTTGGA
224401	CAAGAACCTT	GGGCTAATTC	AGCAGATGAA	GAGAATCTCC	TAATGCAAAT	CAATGGGTAT
224461	TTTTGAGCAA	GTTTTTCAGA	AAAACAGAGT	GTCAGGCCCT	GAGGGTGGTA	CTAAGATGAG
224521	AACATTGATT	TTGCCTTCAT	GATATTGACA	ACACAAAGAG	GAAAGGGGGT	TTGCAGAAAA
224581	CTAAAAGAAG	AAGTAGAAGA	AAAAAGAAAG	ACATAGTATA	ATAGGTAGTC	AAATTATGTA
224641	CAGAAAAAAG	AGGAAAAAAA	ACCAAAAAAG	GGTGGGGGAC	AGACAACCCA	ACTAAAAAAT
224701	GGGCCAATGA	CTTGAACAGG	GACTTCATAA	AAGAGAAAAAT	GTAAGTGGCT	CCTTAACATA
224761	TAAAAAGATG	TTCAACTTCA	TTAGTCATTA	CAGAAATGAA	AATCAAAACT	ACAATTGAAAT
224821	ACCACTATAA	AATTAACTAA	TGGATAAAAT	GAAAGGAGAT	GGAAACAAA	ATGTTGCCAG
224881	ACATGTGGAG	CAACTGGAAC	TTTCATACGT	TACGAATGTG	AACTTTGGAA	AGCTGTCCGG
224941	CAATATCTCC	TAAAGCTAAA	TGTACAATTC	CAGTGACTCA	GACATTTTAC	TTAGAAATGC
225001	ACATATACAT	CCATAAAACA	TGTACAACAA	TGTTTCATAG	AGCACTATCT	GTAATAGCCT
225061	GAACAGGAAG	TTGTCTGTGA	AAAAAAGAAT	GAGTAAATAA	ACCACGGTCT	ATTTGTATAG
225121	CAATGAGAAT	TAACAGACCC	CAATATATAA	TAGATGAATG	GGTCTCATAA	GCACAATATT
225181	GATTAAAGGA	AGACAAAACG	CACATTCTTT	TAAAGGTTTA	TAAAAACTTT	TTTAAAAACA
225241	GCTACAACCA	ATCCGTCCTG	TTAAAAATCA	GTGAGCGATT	TCCCTTGTGC	AGGGATGGGG
225301	GTTGTGGCTG	GATGGATGGT	ACTTAAGAAG	TGCTCCTGGG	GTAAGTGGCT	TATTTTATTT
225361	CTTGACTTGG	ATGTGTGTTT	ACTTTGTGAA	TATTGTACAT	TTATGATTTG	TGCACGTTTA
225421	TGAATGTAGA	AAATAAAACA	GAAAGCAAAT	TCAAAGTATC	ATCCTTTTGA	GAGCTTCTGC
225481	TCTGACTTCG	TTTTGACCAA	TGGAGCAGTT	GGGAAGGGGT	CTTGGTCCTT	CGGTCTTTTG
225541	CTTTTTTTTT	TTTTTTTTTT	TTTTAGACAG	AGTCTCACTC	TGTCGCCCCG	GCTGGAGTGC
225601	AGTGGCTCGA	TCTTAGCTCA	CTGAAAGCTT	TGCCCTCCCG	GTTTCATGCCA	TTCTCCTGCC
225661	TCAGCCTCCC	CAGTAGCTGG	GACTACAGGC	ACCTGCCACC	ATGCCCCGGT	AATTTTTTGT
225721	ATTTTTTAGT	AGAGACGGGG	TTTCACCATG	TTAGCCAGGA	TGGTCTCGAT	CTCCTGACCT
225781	CGTGATCCGC	CCACCTGAGC	CTCCCAAAGT	GCTGGGATTA	CAGGTGTGAG	CCACCGCGCC
225841	CGGCCCTGG	TCCTCTGCTT	TCATGTTCTT	CTTGGTCCTG	TTCTCTCTCC	TCTTTTGTG
225901	GAACTTCCAG	TATCAGAGCA	GGAAGGAAGG	CAATGGGTCA	ATCGATGCTG	TCAGCTTTTG
225961	GATCAAACTG	CAAGTTCTCA	AACAGCAAAA	TTAATGAGCT	CAGGCTTTGA	AGAAACCATG
226021	ACCCTGAAAAG	CATCAGTTGC	TTCCAATTGC	ATCAGTTGCC	ACGGGTGATA	AGAACAATGA
226081	TGACTCAGAA	TGCCTAGGTT	TTCCCAGCAG	CTTCTCTGAG	GTTTTCCCAG	CAGCTTCTCT
226141	GATTGATTCC	TGACAGATGA	CTTCGGTGTG	TCAGACTTTC	AGGGTATCTT	TCCTTATGTG
226201	ATGGTTTGAG	GAAGAGTTAC	CATTCACATT	CCTAATGGCT	TCAGAATAGA	TGCAATTGTG
226261	AACTGATAGG	AAACATTTCT	AATTCATCTC	CCCTCCCCAT	CCCTAAAGGA	TTGTTTCTAA
226321	CAATAGTCAT	GAAAAATTAAT	TCACTTTTCT	CAAATAGTTT	ATTGTCATCT	ACCTAATGAT
226381	GAGATGACTT	ACTTTTTTCT	CTTGACTGTT	AAATATTATG	AATTATATTA	ATGTATTTCT
226441	TAATGTTGAG	CTTTCCCTTG	AATATTCTTT	TGATGTACGA	CAGAATTTGA	TTCACTAATA
226501	GTTTATTTAG	GACTTTGGCT	GATGTACTGA	TATATGAGAT	TGGCTCTGTA	TGCATACATG
226561	TGTTTTGTGT	ATCTTTTTTG	TGTCTGGATA	TGGAGCTTAT	GCTGATTTCA	AAAACAAGAA
226621	AGGAGAACTT	TCCTTTTTCC	CCATTACTCT	GAAAAAGATT	GACTAGAATG	GAATTTTTAT
226681	AATTGCTGTT	GTTATTTGAA	AGCTTGAAAG	CATTGGTTTG	TAAAAATCAT	GCAGGCTGAA
226741	AGCCATTTTG	AGGAGACTTT	GATAACTTTC	TCAATTTTCT	TCAGTTACTG	GTCTTTTAAG

Figure 9 (Page 70 of 74)

159/162

```

226801 GGGTTTTATA TTTTCTTTG ATCAATTTTG ACCATTTATG TTATCTTGGA GGATCATCTA
226861 TTTTACACAC TATTTAAAGT ATATTTGCAA AAATTCAACT GTTTTATCAG GCTATCTTTT
226921 TAATAATATA TTCATTTTAT CTATATCTGA GGTTTTAGCT TCTTTGTACT TCTGACCCAA
226981 TTGCATGTGT GCTTTCTTTC TCCTTCATTA GACTACTTAG TCATTTACTA ATTTTAAGAA
227041 TAGCTTGTCT TTTATTTATT TACTTATTTA TTTTGTAGAC GGAGTCTCAC TCTGTCAACC
227101 AGGCTGGAGT GCAGTGGCGC GATCTCGGCT CACTGCAACC TCCGCCTCCC GGGTTCAAGT
227161 GATTCTCCTG CCTCAGACTC CCGAGTAGCT GGGATTACAG TCATGCACCA CCATGTCTGG
227221 CTAATTTCTG TATTTTAAAT AGAGATGGGG TTTTGCCATG TTGGCCAAGC TGGTCTCAAA
227281 CTCCTGACCT TAGATGATCT ACCCACCTTG GCCTCCCAA GTGCTGGGAT TACAGGCATG
227341 AGCCACTGCG CCCAGCCCTG CTTGTCTTTT TATTTTATAT TTGATTAGCT TTATCTTTTA
227401 TCAAGCTTAT GTCCTATTTT CCTTTGCTTT ACTTCATATA AATTTTGTTT TGGATAGTTT
227461 ATTTATTTTTT CATTTAATTA TGAACAGGT TAAAGCTTAG AGGAAAATTG CTCCTCTAAG
227521 TCCACTTTTTG TGGGCAGATT ACATTTTGCT GTGTTGTGCT CCCAAATTCA TTGTTCTTTT
227581 AATGCTTTTAT TTTCTCAAGTT AATAACCTAT ATAGTAAAAA AGTGGCTGTT GACTCTCAGC
227641 TTTTTTTTTT TTTTTTTTTT TTTTTTTGTA GATACAGGGA TCTTGCTGTG TTGCTCAGGC
227701 TGGTCTGAAA CTCTTGGCTT CAAGGGATCC TCCTGCCTTG GTCTCACAAA ATGCTGGGAT
227761 GACAGACATG AGACACCATG CACGCCATC TCTCTCTCCT TATATATAAT AAGAAAACAG
227821 ACACACTGAG GCATCCTATC ATCTCACTCT TGGTTTCACT ACTGTTCTCT GGAAGTTTGT
227881 CTCTGACCTT TTGCAGTTAA TGTATTAATT TTGCATTGAG TAGTTTCCAT AGAAGAATTA
227941 TAGCATTTGC ATTCTGTTGG GTATTATACT TTTCACTGTT ATTTGAACAT AATTTGAGGG
228001 CTGAAACCAA GATGAGGCAA GTGAGGTGCC CAGGAAGCAA TATTTAAGGA GGCATCTTTT
228061 CTTAGGCTCA TGCAAGAACA GAATTGGCAC ATGAGAGTGA GTGCCTCCTT AATTTTGAGT
228121 GCTGGACACT TCTTGCTCAC TTAGCATACC CCTGGACAAT GAAGTGTTTT TTGTTTGTGTT
228181 TTTTCATGTC CATCCTTTAT CCTTCTTCAT CTCAAACAT TTCAATGGAG TATTTTTTTG
228241 GAGCAGTACT TGGATGAGCC TCTGAGTCCC ACAGTAGCTG AGAATTTATT TCATAGTACT
228301 CTTTATGATC ACTGTGGAGC CTTAAACAT TGTAATATTA ACTTAGCTGG GAACAGAAAT
228361 TTTGTTCCAC AATTTGTCTT ATTCAGAACA GTATTGACTT CCTGCTAGTC TCTTCTGATG
228421 TCCAATATGA GGAAGTCTAG TTAGCCAGCT ACTTTTTGTA GGAGAGCTAT GTTTAGGCTA
228481 GGTGCTATAG GATTCCTTTT ATCCTGGAAT TCCTTCACCA AGATGTGCCA AGGTGTTAAT
228541 CATTTTCTCT TGCTTTTTGG CTGGTGGTCT TAGAGTTTCC TTCGATTTTG TTTTATTTAG
228601 TGATTGTCTT CAATTTGTTT TCTTTACTAA GAATCTCTCT TCTATTTATC TGTATGGTAA
228661 AACCTTGTTG CCCATCTTTC TGGTTTCTGC TGACTTTCAT TTTTGGACCT TTTACTTTGC
228721 TTTCTCCATG GACTTTTTGG TAGTGGAGGC AGGCAAACAC TTTCCAAAGT CTTTCTCAAT
228781 TTCCATCAAT TTCAACTTAT TTCCTAAAAT TGCCTCAGAA TGTGCCTATG TCCACAATAT
228841 CCCTCCTTCC ACTTTAGAAA GGAAAGGCAT CCACACTTTA TTTAGGTGCA ATGCCTGAAG
228901 TGTAACACTT TTCTGGTTGT CAACAAAGGA GTACTTCCAA ATATTGGTTT GGGGATAACC
228961 TGCTAATGAT TAACACATTC ACCTTGGCTC TTGGTTTGCC TGCTCCCTCT TCTTTTATCT
229021 GCTGTGTGTA TTTTTTTTTT TCACTGAGAA TATGCACAGT ATTGTATGTT TTATTATAAG
229081 AGAGGACTGG CCAGAGTGGG AATGTTCTGA ATTCAGAATA ACTGAAGCAG TACAGGATAG
229141 GAACTCATTC TTTCAAATGA AGCTGGCATA TTTTCCCAGA GCACCAAATT TCAATATATA
229201 TTTAAAAAAC TTGATATGAA TGATACAATA AAGTGGTTAG AACTTTTATT AAAATAAACT
229261 TATGTCATGA AATACTTATT CTAATTATAG TCACTCTTCA TCTTATTTCA TCTTATAACA
229321 TGTTTAAATGT TTTCTTTTAT TTACAAAACA ATTTATTTTT TGATGAAAAG TTTTAGAAAT
229381 CAAGTTAAAA ATATTCAAAG GAATGCCATA AGTTTTCAAA ATTCTTTTAC ATGTTGTACA
229441 ATCAAAAGAG TCTGAAGACC ATTTAGCTAT CCAAATTGTT TATTTTTTAA CAGTATCCCT
229501 TCTAATATTT ACTATTTTATA ATCCTTAAAA ATTTGCCTTA GCACAGGAGA ATTGCTTGAA
229561 CCCAGGAGAC GGAGGTTGCA GTGAGCCAAC ACAGTGCCAC TGCCCTCCAG CCTCGGCGAC
229621 AGAGTGAGAC TCTGCTCTCA AAAAAAAAAA AAAAAAAAAA AAAAAAGGCC AAAAACAAAT
229681 AAACAAACAA AAAAATCCGC CTTAACATTA TTTGTTTCAAT AAAAATTTT TTTAATACTA
229741 CTAGTTTCCC TTTCCCTCTCA GCCCATTGTC ATATTTTGAT TTTTATCACT TGCTTTGTAG
229801 GACATATGAG GTTTTTGTTT TTTTTTTTTT TTGGAGATGC AGTCTCCCTC TGTTGCCCGT
229861 GCTGGAGTGC AATGGCGCAA TCTTGGCTCA CTGCAACCTC TGCCTCCTGG GTTCAAGCAA
229921 TTCTCCTGCC TCAGCCTTCC AAGTAGCTGG GATTACAGGC ACCCACTACC ACGCCTGGCT
229981 AATTTTGTGA TTTCTGGTAG AGACGGGGTT TCACCATGTT GGCCAGGCTG GTCTCGAACT

```

Figure 9 (Page 71 of 74)

160/162

```

230041 CCTGACCTCA AGTGATCCAC AATCCTTGGC CTCCCAAAGT GCTATGATTA CAAGCATGAG
230101 CCACCTGCCC AGCCAGAAATA TATGTTTCATT TTGAGTCCTT TAACAAAGTC ATAAGAATTT
230161 TAGGAATTCA GTTACTTTCT TGAGAAAATC TCTGAAAAGA TGCCAATAAT TTGTAGCCAA
230221 TTATATTGAT TTCTCTTTT CATATTGAGA ATTGTTTTTT AAAAAGTTTG TATGTGTGAA
230281 GATTTTTGCA CTGTAGTTAA AGAAACCACC TGTGTGTTGG TTAAGCCATA AGTACATGTA
230341 TTCAAATAAA TTGAGGTGGG GTTACTCTGA GAATCAAAGG AAAACCTGAA GAAACAGGCA
230401 GCCTCAAAAAG GTCTTAGCTG TAGCAACTTG CTCCATTGTT GAAATAAATA GGCTTGAACCT
230461 TGTATTTTCC CTCTACTCAA CATTTAAGGT CTCAGAAGAT AATATAATTG GTGAAATTTA
230521 AGTAAAGTGC TCACTCTTTT GCTTTAACAA ACCCTAGAGA GCTGGTAGGC AGAGCCTCAA
230581 CAGACCGTTT TAGCTTCCAA AGGGAGTTCA GGACACCATG ATTCACGACC ACAATACATC
230641 ACACATAATT GAGAAAAGAT AGTTCCACCA AATAAAGTTG AAATGCTGAC AAGAAGGGGT
230701 AAGAAATCTT GGAAATAGGT TTATATAAAA TTTATTTTTT CCTTTTTTAT TGTATGGAA
230761 TAGGACCAGT TCTACTTAAG CCACCCATT TCCAAAATAA AGTGAGAATC GTTCTTTTGT
230821 GGGACTCCTC TTTGTAGCTC CAAGTGCCAC TAACAATTCT TAGGACCTGA GCTATAAGCC
230881 AGGTGATTTT AGTTAATATG ATCAATTATT TCATTTAAAT GGCTCTAATG TGCAGAGGGA
230941 ACGGAGCCCA TCAGCATTC CTGCAGGGAA CTGCAGTGGC TTTTATCAAC TTGAACAGCT
231001 AGCTTTCAAC TGTTTTGAAA TCACTTTCAG GGTGGTCATG TAGTTGCTTT TTTGAAATCA
231061 GAAGATGATT CTGCCTCTTT TAATATGTGA CTCCTCAGAT TCAGAAAGTG CTCGCTAGTC
231121 TTAAGAGTGA ATTACCTCA GTGGTCCAGC GCTTATGAAC CCACATCTAA CCTATCCCC
231181 TGGGGGAACT ATCAGAGAAA TTGGTGGCCT GGACATAAGA GGAAGGCACA GTGAAGCAGA
231241 GAGCCCCGCA TGATGAAAAT CAGTGGACAG CATCATTATT TACAACCTTG TAATCACCCA
231301 GGAGCATGAA AATCCAGGCC AATCTGGCAC CATGAGCTCT AATTTTGTG GGAGTCTTGT
231361 GAACCGATTG TGATGAATGA CTGTTTAGCC ATTTTAGAGT GTGGCATACG TGGCTGCTGG
231421 CATAAGAGG TTGGATGTAA ACGGGCCTTT GCCCTCTCTT ATGAACATAG ACAGGAATA
231481 AACTGTGTCA CATAGGTTCC AAATGGTGGC CTGAATACTA TTTACAATA AGGTACAATG
231541 AAATTGAGTA AGTCTTTTCC TCTTTTGCAG ATACCATCAT TATTCATATA TTTCTTCAAA
231601 GTTAACTATT TGTATTTGGT AATTTTAAAT AGAAATGTAA TAATTGCTTC TCAAGTTTAG
231661 TCTTTAGTCT TAAGGTTGAT GCTCTCCATG TCCTTCCAAA AAAAGGTATG TTGCTTTTAT
231721 TATATCCTCG CCTTCAGATG GGATTATTCC ATTTTGTCTT TTGTAAATAT ATACTTTGAG
231781 CCACTTTTTT TGTGGCTCTG GGTGAGATGC TATAGGTACA ATGACAAGTG ATACGTGTGT
231841 TGTCCCTGTC ACAAAGTGG ATAGCCTAAG TGGTGACTTT TACCTCCACT CCAAATATAT
231901 GTATCACACA CCAGCCGTAT GCCAGGCACC ACTCTAGGTG CTAGGGATAC AGCAGTAAAC
231961 AGACAAATGC AACCCTGCC CATGTGAAAG AGAATAAGAC AATAAATAAG TAAAGTGCAT
232021 GTTATATGGA GGTGGCAAAT GCTAAAAGA AAAATTAAGC AGGCAAGAGG ACTCATTGAA
232081 AAGATGACAT TTGGGTAAAA GCCCATGTAT ATATGTTCTA TTGGTTTTAT TTCTCTGGAG
232141 AGCCCTGACT AATACACAAT GACTTTGAGA AGTTACTGGC TTTTGATTTA TCACACTATT
232201 CGGAGTGCTG AGAGCCTTCT TAGTGTGTAT TCAGTGTTTT AAGAGAGCTT GTGGATGAAT
232261 AATAAATAGG ACAAATTTA TCCAACTTA AGCCTTGCTT TAGGTAAAAG GGCTCCTCTT
232321 ACAAGGTAGA AGGTTATTAT TTGACATTTA AATCCAACCTG AAGACTAATA AGACTAATTA
232381 ATTAAAGTT TTTAAATCAC AACTGCGTGC AAAATAAATG GAAGTCCAT GCTCGCCAAG
232441 TGTGCATGAG TGGTGTGCAT GGGAGACAGC ACGAAGCTAA TCCCACTCAT CTGTCAGGTT
232501 GCTCCATTTT TCTCCTAAAA TCAGTAAGAC AGAAGCTGGT CAGATTATCA AGAGCCCTAG
232561 TTAAACACAG CAGTAGCATT TGGAAGGGGT TGCTCTCATT AGGCAGTGCC TGACCACAAC
232621 AAGAGATGAA CAAGCCCTGT ATCTGAAGCC ATCATGCCTA GTTATGGTCC CCGACTGTTC
232681 ATGATGCCTG GAAGGGAGGC CCCCTGCACC CTAGAAAGCT GGGTGGGTTT TACTGTCTGC
232741 TTTACTGCTA AAAACCTCT TCTTTGGATC TGGACTTTAC CTCTATCTGA TTTTTTTTTT
232801 TAATATATGA TTTGGCACTG AGTCTGTAC TGCTGCTAAC TCAGCAGTTC TAGGGTCATT
232861 GCCCCATTGC CTCACAGAAA GAATTTTATA GCTTCCAGCA TCCTCTCTCC TTCATTATAC
232921 TTTGATTTCA GCATTGCTAT TTTTCTCTT GGGTGTGCA GCTCTCTCTC TCCTTCCCAT
232981 GTCTTGTTGG TTTTCTGCTA ACTCCTGCTT TTTTCTTTT TTTTTTTTTT AGACGGAGTC
233041 TCGTTCTGTC ACCCAGGCTG GAGTGCAGTG GCACAATCTC GGCTCACTGC AACCTCCGCC
233101 TCCCGGGTTC AAGCTATTCT CCTGCCTCAG CCTCCCAAGT AGCTGGGACT ACAGGCCTC
233161 ACCACTATGC CCCACTAATT TTTGTATTT TAGTATTGCT GTCATCAATC CACATGTCCA
233221 GAAGCACCTA GAAACTCTAA TTCTTTGTAG GTATCAAACC CTAGGACTCT TTCCTCTAAT

```

Figure 9 (Pag 72 of 74)

161/162

233281	CACAATATAT	AATCCCTGAT	TCCCAAACAC	GGTCTTTTCA	TATACATTTT	CCACTGTACA
233341	TACTTTCTGA	CCTGGAAAGC	TCTTACACAA	ACACGCCCTC	CCCTAGGAAG	CCTTTTATAAA
233401	TGTTCCCAGG	AAGAATCAGT	CACCCAACAG	TGTCCTTGTC	ACATCTTAGG	TTCTACACCT
233461	TTATTTGTTC	TATCTGAATG	TAATCTCCCA	GAGGGTGTTA	TCATCTTTTT	TTTTGAGATG
233521	GAGTCTTGCT	TTGCTGCCCC	GGCTGGAGTG	CAGTGGCATG	ATCTCGGCTC	ACAGCAACCT
233581	CCACCTCCTG	GGTTCAAGTG	ATTCTCCTGC	CTCAGCCTCC	TGAGTAGCTG	GGATTACAGA
233641	CGTGTGTAC	CACACCTGGC	TAATTTTTGT	ATTTTTTAGTA	GAGACAGGGT	TTCACCGTGT
233701	TGGCAAGGCT	TTCCCTCGAAC	TCCCAAACCTC	AGGTGATCCA	CCCACCTCAG	CCTCCCAAAG
233761	TGCTGGGATT	ACAGGTGTGA	GCCACCATGT	CCAGCCCCAT	CTTTTTCTTT	TAGTTTAGTT
233821	CTTAACAAAT	AGTCTGACAC	AAAGTGGATA	TAACAATATT	TTGAATTATG	AATAACTAAA
233881	TGAATATTTT	CAGATTTCCCT	GGTGCTCTCA	AAGTTTTATG	TTACAAAAGA	AAAACAAGTC
233941	TAAAAACCTT	GCCTCAAGTT	TTTATCTGTA	CTATGATTTT	AAACCAAATA	AAAAACAGGT
234001	GGGGTAAAAA	CTGAAACAGG	AAATACATAT	AACTGAAAAA	TTTTGGTATG	TTAGTATGAT
234061	AATACTAGGT	CATTTTTCCCT	GTTTCCCCAA	CTTCATTTTC	TATAGCAATA	AAAAGAAACA
234121	AGTAAATGTA	TGTTAATTTA	ATTTAAAAAGA	AGTAGTCTAC	CATCTCTTCT	GTTAAAAAGA
234181	AAAAAGTATT	TTAAAAAATT	ATCTCTGGAA	GGATACACAG	GGAACATTGC	TCTGGTTTCT
234241	TCCAAGAGAG	AAATGAGGAA	CTAGAGAGCA	TGGCCAAGTG	GGGTTTTGCT	TTTGTTTTTG
234301	TTTGTCTATC	TGTTAGCTTT	TTATTATTTT	CTTTTGTAGG	TTTGAATTTT	AAACCACATA
234361	AATCTGTTAC	ATGCTCATAA	TAATAAGTTT	AAAATAAAAC	TTTTGGCTGG	GTGCAATGAC
234421	TTACACCTGT	AATCCCAGCG	CTTTGGGAAG	CAGAGGTGGG	AGGATACTTG	AGGCCAGGAA
234481	TTTGAGATCA	GCCTGGGCAA	CATAGTGAGA	CCCTGCCTCT	GTAGAAATAA	ACAAAAATTA
234541	GCTGGATATG	GTGGTGTCATG	CTTGTACTCC	TAGCTACTTG	GGAGGTTGAG	GCAGGAGGAT
234601	CCTTTGAGTC	CAGGAGTTTG	AGGCTGCAGT	GAGCTATAAT	CACCCACTGC	ACTATAGCAT
234661	GGGCAATAAG	GTGAGAACTT	GTCTCAAAAA	AAAAAGGGGG	GGGGGAAACA	AATAAATAAA
234721	TATAAACAAA	ACTTTTGTTT	CAAATATGT	AATATTTAGC	ACTAAAGAAT	TCTGAATTGT
234781	AGAGCTAAAA	AGTACTTAAA	AGTTAATAAC	TATTGTCTCC	TTTAAAAGAA	TTGTTATCAA
234841	AGTATAATTT	TTATCCAGAA	AATCATCCAT	ATCAGCAAGC	TAAACTTTCT	CAAAATGACA
234901	TATCCATGTA	ATTAGCTCCC	AGGTAATTAG	CAGGCAGCCT	CTACTCAGGT	TGAGTATTCC
234961	TAATCTAAAA	ATTGGAAATT	CAAATGCTC	CAAATCTGC	AACTTTTTGA	ATGCTAACAT
235021	GATTCTCAAA	GGAGTGCTCA	TGGAGTATTT	CAGATTTTGG	ATTTTTGGAT	TTGAGATACT
235081	CAGTATAATG	CAAACATTCC	AAATCTGAAA	AAATCTGAAA	TACTTCTGGT	TCTAAGCATA
235141	AGGGATACTC	AACGTGTGTT	AGCTAATTAG	ACCCTTCATG	GTCTCTTCTA	GACCTCAGCT
235201	TCTTCAAGGT	AACCTCTATC	CTCACTTCTA	ATAGCATGAA	CTTTTCTGTT	TTAGAATAAT
235261	TTGGATTTTC	AGGAAAGTTG	CAAAGATAGT	ACAAAGACAG	TACAGGAGAG	TTCCCATATA
235321	TCTTTCACCT	AGCTTTCCCC	CATTGTTAGG	ATTTTACATT	ATTATGATAC	ATTTGTCAAA
235381	TATAAGCAAC	TCACATTGAT	ACATGAAACT	CTATTAACCA	AACCCTAGAC	TTTATGTGGA
235441	TTTCACCACT	GTTTCCACTA	ATGTTTTCTT	TCTGTTCCAA	GGTCCAATCT	GGAATACCAC
235501	ACTGCATTTT	CTTGTCATAT	CTCCCTAGTC	TTTTTTTGTG	TGTGACAATG	TCTCAGTCTT
235561	TTCTTGCTTT	TCATGACCTT	AACAGTCCTG	AAGATCATTT	GCTTTTTTTT	CATAATTACA
235621	CCGGAGTTAT	AGATTTTTTT	AAATAATACC	ACAAGGGCAA	AGGGCCCTTC	TTGTCACATC
235681	ATTTTAGGGA	GAACATGATA	TCCACATGAC	ATCACTGATA	TTAACCTTCA	TCATGTGGTT
235741	TAGGTAATGT	TTCAGGTTTC	TCTACTGCAA	AGTGATTTTT	TTCCCTTAAT	TTAGCCCACC
235801	TGAACTTATC	AATTTTGTTT	TCTTCCATGA	CTAATACTTT	TGTTATTATA	GCTAAAACCT
235861	CATTGGGGCC	AAATCTTAGA	TCATGTAAAT	TTTCTTCTAT	ATTTTATTCT	AAAAGCTTGT
235921	AATGTTTGAT	ACATTCTAAA	AGATGTAATG	TTTGATACAT	TACATCTAGT	CCTTTGATTT
235981	ATTTTGTAGT	ACTTTTGTAT	AAGGTGTGAG	AGATGTCTCC	AGTTTCACCT	TATTAACACA
236041	TTGTGGTGTT	CCAGTACTAT	TTGTTGCTAA	GACTATCTTT	TTTCCATTGA	TTACCTTTGC
236101	CTTAGTTGGC	AATATTTTTG	TTGGTTTATT	TCTAGACTGT	TTATCTCATT	CCACTGATTT
236161	GTGTCTATCT	TTTTGACAAA	ACTGTTGATT	ACAGTAAGCT	TTGAAATAGT	TCATTTTTTG
236221	TGTCAACTTG	ACTGAGTCAG	GGGATAACCA	GCTATCTGGT	TAAACATTAT	TTCTGGCTGT
236281	GTTTGTGAGC	GTGTTTCTGG	ATGAGATTAG	CCTTTGAATA	GGTGATCCTA	GTAAAGTAAA
236341	CTGTCTTTCC	CAGTGTGGAT	GGCATTATGC	CACCTGATAT	TCAGGGTCTG	AATAGAAGAA
236401	AAGGCAGAGG	AAGGGGGAAT	TTGGGCCCTT	TTTTCTGCCCT	CACTGCTTGA	GCTGGGACAT
236461	CTCATCTGGT	CTCCTGCTCT	TGAACTGGGA	TTTACATCAT	CAGTTCCTCT	GGTTCTCAGG

Figure 9 (Page 73 of 74)

162/162

236521 CCTTCAGATT CAGACTGAAT CATAACCACCA GCTTTCCTGG GTCTCCAGCT TGCAGATTAC
236581 AGATCATGGG ACTCCTCATC TTCCATAAAT GCATGAGCCA ATTCAGTCTA TGTCCTTGAA
236641 AACTGCCCCA CTGCAGATTA AGGCTTTTTT CCACTAGGTG AAATAAAGAA GCTTGTTAGA
236701 CAGATTTCCC TTCATCCAGT GCCCTCTCCT CTTTAAGTTA CAACACATTG GCTACACCTA
236761 AGTGCAGGGG TGGGGATGAG GGTATAGTCC TCTTGTTTGC TGAGAAGAGA ACTGTATTGG
236821 GAAAGCTCTA GAAGTGTTTG ATACATACAT AAACAAGGCA TGGTTTTTGC ACTTAATTTC
236881 ACATTACATT TTTCCCAGAA AAAAAGGAAT GTATAGGCAT CACGTAACTG TACTAGCTGG
236941 AGTCATTCTT CCTGATTATC AAAGGTAAAC AGTTATTAAT CCTATACCAA GATGTCAAGG
237001 AGAAGTACTT TTGGAACACA AGGAATTCTC TGGGAGTCCT TACTACTCTC AAGCCCAGTG
237061 AAAAAGTTAA TGAAAACTA TAGTACCTTC CTATAAGCTG GATGACTAAT TACCAGGCTC
237121 ATTTAGGAAT TTGCCTTACC AAGTAAAACA TAAGGGCAGC TGAGGTGCTG ACTGAAGACA
237181 AATGGAGCAT AGAATAAGAG TAGTAAAGAA TGCCAAAAAT GCTGTCATGT ATCCATTGAC
237241 AAAAGGAGCT ATAAAGCCTT TAGGTATTTT CACACTTGCT CTGTTACGTA AATGTATGTG
237301 TGTGTGTGTG TGTGTGTGTG TGTGTG

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US97/17658

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : C07H 21/04; C12Q 1/68; C12N 15/63, 15/85; C12P 21/02

US CL : 536/23.5; 435/6, 70.1, 325, 320.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.5; 435/6, 70.1, 325, 320.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, DIALOG'S BIOTECH cluster.

hemochromatosis, BTF1, BTF2, BTF3, BTF4, NTP-3, NTP-4, RoRet, butyrophilin, type 1 sodium transport

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	RUDDY, D.A. et al. A 1.1-Mb transcript map of the hereditary hemochromatosis locus. Genome Research. May 1997, Vol. 7, No. 5, pages 441-456, see entire document.	1-20, 22-77
X	FISCHER, L. et al. Cloning of the 62-kilodalton component of basic transcription factor BTF2. Science. 04 September 1992, Vol. 257, pages 1392-1395, see entire document.	28-33, 71
X	MARGOTTIN, F. et al. Participation of the TATA factor in transcription of the yeast U6 gene by RNA polymerase C. Science. 25 January 1991, Vol. 251, pages 424-426, see entire document.	22-27, 70

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
I document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

20 JANUARY 1998

Date of mailing of the international search report

12 FEB 1998

 Name and mailing address of the ISA/US
 Commissioner of Patents and Trademarks
 Box PCT
 Washington, D.C. 20231

Facsimile No. (703) 305-3220

Authorized officer

F. PIERRE VANDERVEGT

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US97/17658

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZHENG, X.M. et al. Sequencing and expression of complementary DNA for the general transcription factor BTF3. Nature. 05 April 1990, Vol. 344, pages 556-559, see entire document.	34-39, 72
X	PANTEGHINI, M. Electrophoretic fractionation of 5'-nucleotidase. Clinical Chemistry. February 1994, Vol. 40, No. 2, pages 190-196, see entire document.	52-57, 75
X ---- A	BURT, M. J. et al. A 4.5-megabase YAC Contig and physical map over the hemochromatosis gene region. Genomics. 15 April 1996, Vol. 33, No. 2, pages 153-158, see entire document.	1-6 ---- 7-20, 22-77
A	VERNET, C. et al. Evolutionary study of multigenic families mapping close to the human MHC Class I region. J. Mol. Evol. November 1993, Vol. 37, No. 6, pages 600-612, see abstract in particular.	1-20, 22-77

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US97/17658

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐

The additional search fees were accompanied by the applicant's protest.

☒

No protest accompanied the payment of additional search fees.

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-20, drawn to polynucleotide sequences containing at least one polymorphic site, polypeptides encoded thereby, antibodies to said polypeptides and a method to determine the presence of the HFE gene mutation.

Group II, claim 21, drawn to the lymphoblastoid line atcc crl-12371.

Group III, claim(s) 22-27 and 70, drawn to BTF1 nucleic acids, gene products, vectors and antibodies.

Group IV, claim(s) 28-33 and 71, drawn to BTF2 nucleic acids, gene products, vectors and antibodies.

Group V, claim(s) 34-39 and 72, drawn to BTF3 nucleic acids, gene products, vectors and antibodies.

Group VI, claim(s) 40-45 and 73, drawn to BTF4 nucleic acids, gene products, vectors and antibodies.

Group VII, claim(s) 46-51 and 74, drawn to BTF5 nucleic acids, gene products, vectors and antibodies.

Group VIII, claim(s) 52-57 and 75, drawn to NPT3 nucleic acids, gene products, vectors and antibodies.

Group IX, claim(s) 58-63 and 76, drawn to NPT4 nucleic acids, gene products, vectors and antibodies.

Group X, claim(s) 64-69 and 77, drawn to RoRet nucleic acids, gene products, vectors and antibodies.

The inventions listed as Groups I-X do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups I and III-X are drawn to physically different genes and their gene products and each therefore constitutes a separate invention. The lymphoblastoid cell line of Group II is not dependent upon the vectors of any of the Groups I and III-X and therefore constitutes a separate invention. Accordingly, the claims are not so linked by a special technical feature within the meaning of PCT Rule 13.2 so as to form a single inventive concept.